

# **ENERGY REPORT**

**THE RITZ-CARLTON RESIDENCES PROJECT  
NEWPORT BEACH, CALIFORNIA**

**LSA**

February 2022

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## **THE RITZ-CARLTON RESIDENCES PROJECT NEWPORT BEACH, CALIFORNIA**

Submitted to:

Lyon Living  
4901 Birch Street  
Newport Beach, California 92660

Prepared by:

LSA  
2565 Alluvial Avenue, Suite 172  
Clovis, California 93611  
(559) 490-1210

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## TABLE OF CONTENTS

TABLE OF CONTENTS .....	i
FIGURES AND TABLES .....	ii
LIST OF ABBREVIATIONS AND ACRONYMS.....	iii
<b>INTRODUCTION .....</b>	<b>1</b>
Project Description.....	1
Project Location.....	1
Surrounding Land Uses.....	1
Proposed Project .....	3
Project Construction.....	6
<b>BACKGROUND .....</b>	<b>7</b>
Electricity.....	7
Natural Gas.....	7
Fuel .....	8
Regulatory Setting.....	9
Federal Regulations.....	9
State Regulations.....	10
Local Regulations.....	12
<b>THRESHOLDS OF SIGNIFICANCE.....</b>	<b>13</b>
<b>IMPACTS ANALYSIS.....</b>	<b>14</b>
Consumption of Energy Resources .....	14
Construction Energy Usage .....	14
Operational Energy Usage.....	15
Consistency with Plans for Renewable Energy or Energy Efficiency.....	17
Cumulative Analysis .....	18
Conclusion .....	20
<b>APPENDICES</b>	
A: CALEEMOD OUTPUT SHEETS	
B: ENERGY CALCULATIONS	

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## FIGURES AND TABLES

### FIGURES

Figure 1: Project Location and Vicinity .....	2
Figure 2: Aerial Photograph and Surrounding Land Uses .....	4
Figure 3: Site Plan .....	5

### TABLES

Table A: Proposed Project Energy Consumption Estimates During Construction .....	15
Table B: Energy Consumption Estimates During Operation.....	17

## LIST OF ABBREVIATIONS AND ACRONYMS

AB	Assembly Bill
BTU	British Thermal Unit
CalEEMod	California Emission Estimator Model
CALGreen Code	California Green Building Standards Code
CBC	California Building Code
CBSC	California Building Standards Commission
CCR	California Code of Regulations
CEC	California Energy Commission
CEQA	California Environmental Quality Act
City	City of Newport Beach
CO <sub>2</sub>	carbon dioxide
CPUC	California Public Utilities Commission
DOT	U.S. Department of Transportation
EAP	Energy Action Plan
EIA	Energy Information Administration
EIR	Environmental Impact Report
General Plan EIR	2006 General Plan Environmental Impact Report
GHG	greenhouse gas
GWh	gigawatt-hour
ITE	Institute of Transportation Engineers
kWh	kilowatt-hours
LEED	Leadership in Energy and Environmental Design
MW	megawatt
mpg	miles per gallon
NHTSA	National Highway Traffic Safety Administration
PRC	Public Resources Code
SAFE	Safer Affordable Fuel Efficient
SB	Senate Bill
SCE	Southern California Edison

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SoCalGas	Southern California Gas Company
sq mi	square mile(s)
USEPA	United States Environmental Protection Agency
VMT	vehicle miles traveled
ZEV	zero emission vehicle
ZNE	zero net energy

## INTRODUCTION

This Energy Report has been prepared to discuss energy use resulting from implementation of the proposed project and to evaluate whether the proposed project would result in the wasteful, inefficient, or unnecessary consumption of energy resources or conflict with any applicable plans for renewable energy and energy efficiency. The energy use analysis in this section is based on information from the California Emissions Estimator Model (CalEEMod) version 2020.4.0 prepared for the proposed project.

This analysis also supports the proposed project's use of an Addendum to the 2006 General Plan Environmental Impact Report (General Plan EIR). This analysis is prepared pursuant to CEQA Guidelines Section 15164(a) which states: "the lead agency or a responsible agency shall prepare an addendum to a previously certified EIR if some changes or additions are necessary but none of the conditions described in PRC Section 21166 and Section 15162 calling for preparation of a subsequent EIR have occurred."

## PROJECT DESCRIPTION

### Project Location

The project site is the Newport Beach Marriott Resort Hotel, located at 900 Newport Center Drive in the City of Newport Beach (City), California. See Figure 1, Project Location and Vicinity, below. The Newport Beach Marriott Resort Hotel is a 9.53-acre property located immediately southwest of Fashion Island, within Newport Center. The resort hotel campus includes 532 hotel rooms and expansive amenities, including three swimming pools, a day spa, restaurants, conference/ballroom space, meeting rooms, and ancillary support uses. The resort hotel components are contained within five separate buildings and one parking structure.

The buildings range from 30 feet in height to 151 feet in height and overlook the Newport Beach Country Club golf course. The buildings are predominantly oriented towards Newport Harbor and the Pacific Ocean to the south. The attached Existing Site Plan depicts the location of the existing buildings and the unit count.

The project site is accessible from Newport Center Drive and Santa Barbara Drive and includes approximately 698 parking spaces, mostly provided in an underground parking garage and including self-parking and valet parking options. The Newport Beach Marriott Resort Hotel was originally constructed in 1975 and renovated in 1986 including the construction of the Pacific Pointe building and the parking structure. The hotel operates under Use Permit 2095.

### Surrounding Land Uses

The project site is located within the Newport Center-Fashion Island subarea, which is a largely mixed-use area of the City. Newport Center is bounded by MacArthur Boulevard to the east, San Joaquin Hills Road to the north, Jamboree Road to the west, and Pacific Coast Highway to the south. Land uses in the project area include the Fashion Island Regional Commercial retail shopping center, major commercial office developments, residential developments including the Granville and

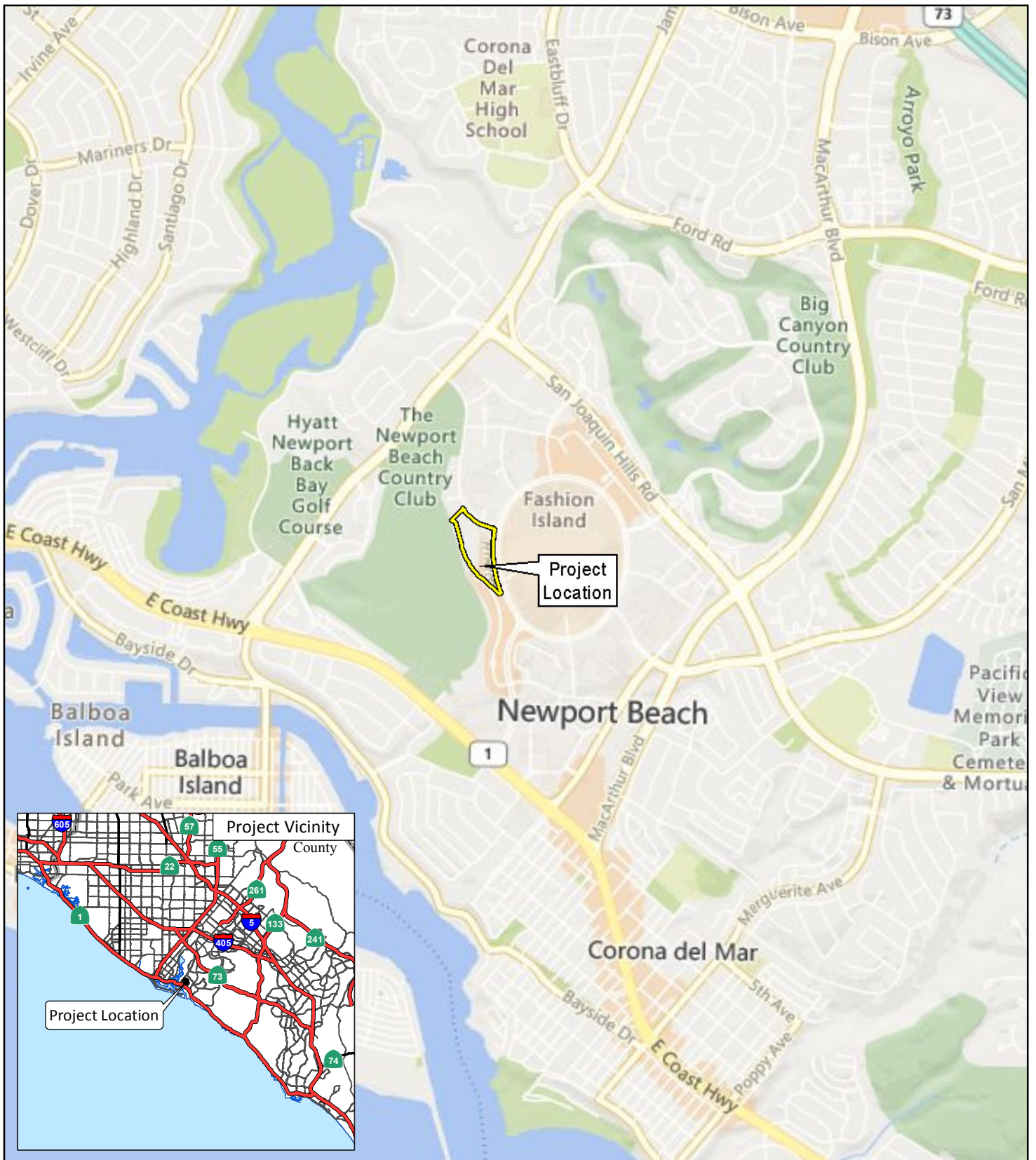


FIGURE 1

LSA

LEGEND

 Project Location



0 1000 2000  
FEET

SOURCE: Bing (2021)

I:\NCH2101\GIS\MXD\ProjectLocation.mxd (1/25/2022)

The Ritz Carlton Residences  
Project Location and Vicinity



Meridian condominium communities, and the Colony at Fashion Island apartment homes, and the Newport Beach Country Club. The Meridian condominium community is located immediately adjacent to the project site on the north along Santa Barbara Drive, with the guard-gated Granville condominiums located immediately to the southeast. Mid-rise commercial office buildings are located across Santa Barbara Drive to the north, and Fashion Island is located across Newport Center Drive to the north/northeast. The Newport Beach Country Club golf course abuts the southern property line. See Figure 2, Aerial Photograph and Surrounding Land Uses, below.

In addition to several residential communities, including Meridian, Granville, Colony at Fashion Island, Vivante Senior Housing (currently under construction), and other pending projects, Newport Center is characterized by high- and mid-rise office buildings surrounding Fashion Island, which provide residents and visitors shopping, entertainment, and restaurant amenities. The majority of the high-rise buildings are located in Blocks 400–600, with building heights exceeding 300 feet above ground level. Low- and mid-rise buildings are concentrated in the southeastern portion of Newport Center closest to MacArthur Boulevard and Pacific Coast Highway. Newport Center is considered a major employment center, which includes research and development and high technology businesses in addition to substantial medical office uses. The Newport Beach Civic Center is located in Newport Center between Avocado Avenue and MacArthur Boulevard.

### Proposed Project

The proposed project at the Newport Beach Marriott Resort Hotel consists of the conversion of up to 30 percent of the existing 532 hotel rooms to construct hotel-branded residences. The project contemplates the demolition of the southernmost building, Harbor Landing, and construction of a new residential building in the same location (see next paragraph for more detail regarding the new building). The project would remove 133 hotel units by demolishing the Harbor Landing building converting 26 hotel rooms in the Harbor Point building via interior reconfiguration into hotel-branded residences. The remainder of the Harbor Point building would change from 153 hotel rooms to 127 hotel rooms, but the building itself would not be demolished and no exterior improvements are proposed. Together, there would be 159 fewer traditional hotel rooms than now exist.

The new 22-story building would accommodate up to 159 hotel-branded residences, representing 30 percent of the total units at the Newport Beach Marriott Resort Hotel. The total units at the Newport Beach Marriott Resort Hotel would remain unchanged at 532, with 373 traditional hotel rooms and up to 159 hotel-branded residences. The details of the project site are included in Figure 3, Site Plan.

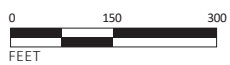
The new building is proposed to be up to 295 feet above ground level, with limited projections for rooftop appurtenances such as elevator overruns and screened mechanical equipment, as permitted by City code. On-site circulation for hotel drop-off/pick-up and parking would remain as existing. Residents and guests of the hotel-branded residences would be directed to a separate entrance on the south side of the property for access to the new residential building drop-off/pick-up, parking, and valet areas.





FIGURE 2

LSA



Project Site Boundary

SOURCES: Google Earth, 1/22/2020; LSA, 2022

azcorp04\FREprojects\NCH2101 Ritz-Carlton Residences\PRODUCTS\Graphics\Figure 2.ai (1/25/2022)

Ritz-Carlton Residences Project  
Aerial Photograph and Surrounding Land Uses



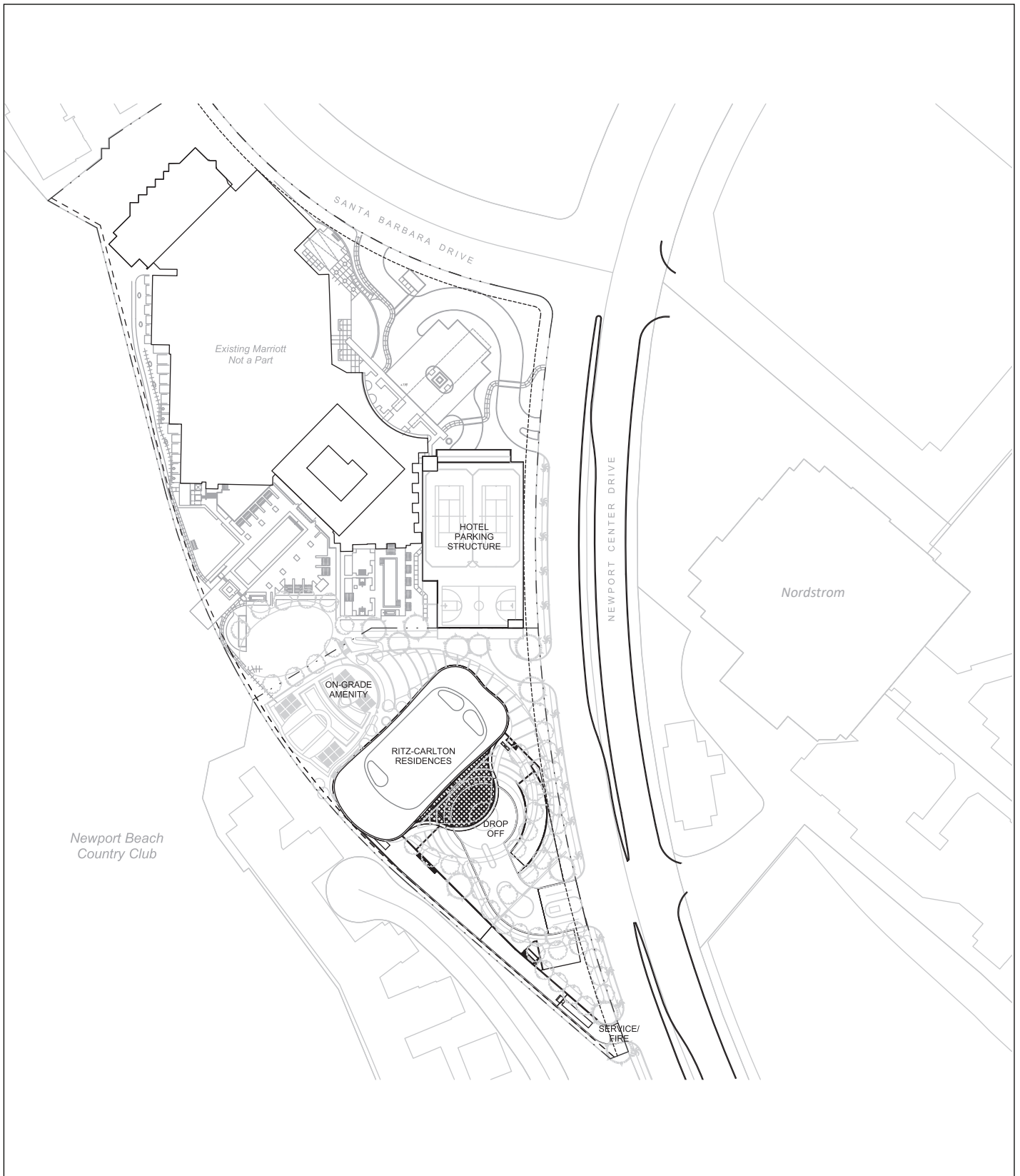


FIGURE 3

LSA

NOT TO SCALE



Ritz-Carlton Residences Project  
Site Plan

SOURCES: Newport Center Hotel, LLC; MVE + Partners, 10/15/2021

azcorp04\FREprojects\NCH2101 Ritz-Carlton Residences\PRODUCTS\Graphics\Figure 3.ai (1/12/2022)

Parking spaces required by City code would be maintained in an existing 6-level, 400-space parking structure proposed to be demolished and rebuilt in substantially the same location and a new 5-level, 408-space subterranean parking structure constructed below the new building. The new building for the hotel-branded residences would be accessed via Newport Center Drive in two ways, including an entrance into a porte cochere for valet parking and through direct access into the below-grade parking structure.

The project would include the construction of new extensive hardscape and landscape areas, and guest-serving amenities including, but not limited to, a swimming pool, a fitness facility, meeting rooms, and other food service amenities. In addition, the proposed project would include an emergency diesel generator, natural gas hearth, water-efficient irrigation systems, and water efficient landscape.

### Project Construction

Construction is anticipated to be completed in 42 months from the start of demolition. This timeline includes approximately 6 months of demolition and site preparation and approximately 36 months for construction of the new subterranean parking structure and residential building. The proposed project would require the demolition of approximately 263,194 square feet and the export of 205,700 cubic yards of soil. Construction equipment would be staged completely on site in the development area so as not to impede hotel operations and guests. Off-site parking would be provided daily for workers with a shuttle to the hotel, if necessary.

During construction, hotel operations would be slightly impacted, as guests would be redirected to a nearby offsite parking area. However, the hotel and all hotel amenities would remain in operation with possible minimal closure of select outdoor amenities subject to noise and dust during the grading and site preparation phase of construction.

## BACKGROUND

This section provides background information on energy usage in the project area and provides regulatory background information, including federal, State, and local energy regulations.

### ELECTRICITY

Electricity is a manmade resource. The production of electricity requires the consumption or conversion of energy resources (including water, wind, oil, gas, coal, solar, geothermal, and nuclear resources) into energy. Electricity is used for a variety of purposes (e.g., lighting, heating, cooling, and refrigeration, and for operating appliances, computers, electronics, machinery, and public transportation systems).

According to the most recent data available, in 2020, California's electricity was generated primarily by natural gas (37.06 percent), renewable sources (33.09 percent), large hydroelectric (12.21 percent), nuclear (9.33 percent), and coal (2.74 percent). Total electric generation in California in 2020 was 272,576 gigawatt-hours (GWh), down 2 percent from the 2019 total generation of 277,704 GWh.<sup>1</sup>

The project site is within the service territory of Southern California Edison (SCE). SCE provides electricity to more than 15 million people in a 50,000-square-mile (sq mi) area of Central, Coastal, and Southern California.<sup>2</sup> According to the California Energy Commission (CEC), total electricity consumption in the SCE service area in 2020 was 83,633 GWh (32,475 GWh for the residential sector and 51,158 GWh for the non-residential sector). Total electricity consumption in Orange County in 2020 was 19,733 GWh (7,765 GWh for the residential sector and 11,968 GWh for the non-residential sector).<sup>3</sup>

### NATURAL GAS

Natural gas is a non-renewable fossil fuel. Fossil fuels are formed when layers of decomposing plant and animal matter are exposed to intense heat and pressure under the surface of the Earth over millions of years. Natural gas is a combustible mixture of hydrocarbon compounds (primarily methane) that is used as a fuel source. Natural gas is found in naturally occurring reservoirs in deep underground rock formations. Natural gas is used for a variety of uses (e.g., heating buildings, generating electricity, and powering appliances such as stoves, washing machines and dryers, gas fireplaces, and gas grills).

<sup>1</sup> California Energy Commission (CEC). 2021a. *2020 Total System Electric Generation*. Website: <https://www.energy.ca.gov/data-reports/energy-almanac/california-electricity-data/2020-total-system-electric-generation> (accessed December 2021).

<sup>2</sup> Southern California Edison (SCE). 2021. About Us. Website: <https://www.sce.com/about-us/who-we-are> (accessed December 2021).

<sup>3</sup> CEC. 2021b. Electricity Consumption by County and Entity. Website: <http://www.ecdms.energy.ca.gov/elecbycounty.aspx> and <http://www.ecdms.energy.ca.gov/elecbyutil.aspx> (accessed December 2021).

Natural gas consumed in California is used for electricity generation (45 percent), residential uses (21 percent), industrial uses (25 percent), and commercial uses (9 percent). California continues to depend on out-of-state imports for nearly 90 percent of its natural gas supply.<sup>1</sup>

The Southern California Gas Company (SoCalGas) is the natural gas service provider for the project site. SoCalGas provides natural gas to approximately 21.8 million people in a 24,000 sq mi service area throughout Central and Southern California, from Visalia to the Mexican border.<sup>2</sup> According to the CEC, total natural gas consumption in the SoCalGas service area in 2020 was 5,231 million therms (2,426 million therms for the residential sector and 2,294 million therms for the non-residential sector). Total natural gas consumption in Orange County in 2020 was 595 million therms (387 million therms for the residential sector and 208 million therms for the non-residential sector).<sup>3</sup>

## FUEL

Petroleum is also a non-renewable fossil fuel. Petroleum is a thick, flammable, yellow-to-black mixture of gaseous, liquid, and solid hydrocarbons that occurs naturally beneath the earth's surface. Petroleum is primarily recovered by oil drilling. It is refined into a large number of consumer products, primarily fuel oil, gasoline, and diesel.

The average fuel economy for light-duty vehicles (autos, pickups, vans, and SUVs) in the United States has steadily increased from about 14.9 miles per gallon (mpg) in 1980 to 22.2 mpg in 2019.<sup>4</sup> Federal fuel economy standards have changed substantially since the Energy Independence and Security Act was passed in 2007. The Act, which originally mandated a national fuel economy standard of 35 mpg by year 2020<sup>5</sup>, applies to cars and light trucks of Model Years 2011 through 2020. In March 2020, the United States Environmental Protection Agency (USEPA) and National Highway Traffic Safety Administration (NHTSA) finalized the Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021–2026 Passenger Cars and Light Trucks, further detailed below.

Gasoline is the most used transportation fuel in California, with 97 percent of all gasoline being consumed by light-duty cars, pickup trucks, and sport utility vehicles. According to the most recent data available, total gasoline consumption in California was 360,237 thousand barrels or 1,819.9 trillion British Thermal Units (BTU) in 2019.<sup>6</sup> Of the total gasoline consumption, 343,677 thousand

<sup>1</sup> CEC. 2021c. Supply and Demand of Natural Gas in California. Website: <https://www.energy.ca.gov/data-reports/energy-almanac/californias-natural-gas-market/supply-and-demand-natural-gas-california> (accessed December 2021).

<sup>2</sup> Southern California Gas Company (SoCalGas). 2021. About SoCalGas. Website: <https://www.socalgas.com/about-us/company-profile> (accessed December 2021).

<sup>3</sup> CEC. 2021d. Gas Consumption by County and Entity. Website: <http://www.ecdms.energy.ca.gov/gasbycounty.aspx> and <http://www.ecdms.energy.ca.gov/gasbyutil.aspx> (accessed December 2021).

<sup>4</sup> U.S. Department of Transportation (DOT). "Table 4-23: Average Fuel Efficiency of U.S. Light Duty Vehicles." Website: <https://www.bts.dot.gov/bts/bts/content/average-fuel-efficiency-us-light-duty-vehicles> (accessed December 2021).

<sup>5</sup> U.S. Department of Energy. 2007. "Energy Independence & Security Act of 2007." Website: <https://www.afdc.energy.gov/laws/eisa> (accessed December 2021).

<sup>6</sup> A British Thermal Unit is defined as the amount of heat required to raise the temperature of one pound of water by one degree Fahrenheit.

barrels or 1,736.3 trillion BTU were consumed for transportation.<sup>1</sup> Based on fuel consumption obtained from EMFAC2021, approximately 154.1 million gallons of diesel and approximately 1.3 billion gallons of gasoline will be consumed from vehicle trips in Orange County in 2022.

## REGULATORY SETTING

Federal and State agencies regulate energy use and consumption through various means and programs. On the federal level, the United States Department of Transportation, the United States Department of Energy, and the United States Environmental Protection Agency (USEPA) are three federal agencies with substantial influence over energy policies and programs. Generally, federal agencies influence and regulate transportation energy consumption through establishment and enforcement of fuel economy standards for automobiles and light trucks, through funding of energy-related research and development projects, and through funding for transportation infrastructure improvements. On the State level, the California Public Utilities Commission (CPUC) and the CEC are two agencies with authority over different aspects of energy.

The CPUC regulates privately owned electric, natural gas, telecommunications, water, railroad, rail transit, and passenger transportation companies and serves the public interest by protecting consumers and ensuring the provision of safe, reliable utility service and infrastructure at reasonable rates, with a commitment to environmental enhancement and a healthy California economy.

The CEC is the State's primary energy policy and planning agency. The CEC forecasts future energy needs, promotes energy efficiency, supports energy research, develops renewable energy resources, and plans for/directs state response to energy emergencies. The applicable federal, State, regional, and local regulatory framework is discussed below.

### Federal Regulations

#### *Energy Policy Act of 2005*

The Energy Policy Act of 2005 seeks to reduce reliance on non-renewable energy resources and provide incentives to reduce current demand on these resources. For example, under this Act, consumers and businesses can obtain federal tax credits for purchasing fuel-efficient appliances and products (including hybrid vehicles), building energy-efficient buildings, and improving the energy efficiency of commercial buildings. Additionally, tax credits are available for the installation of qualified fuel cells, stationary microturbine power plants, and solar power equipment.

#### *Safer Affordable Fuel-Efficient Vehicles Rule*

On March 21, 2020, the USEPA and National Highway Traffic Safety Administration (NHTSA) finalized the Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021–2026 Passenger Cars and Light Trucks (SAFE Vehicles Rule). The SAFE Vehicles Rule amends certain existing Corporate

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<sup>1</sup> U.S. Department of Energy, Energy Information Administration (EIA). 2021a. California State Profile and Energy Estimates. Table F3: Motor gasoline consumption, price, and expenditure estimates, 2019. Website: [eia.gov/state/seds/data.php?incfile=/state/seds/sep\\_fuel/html/fuel\\_mg.html&sid=CA](https://eia.gov/state/seds/data.php?incfile=/state/seds/sep_fuel/html/fuel_mg.html&sid=CA) (accessed December 2021).

Average Fuel Economy and tailpipe carbon dioxide (CO<sub>2</sub>) emissions standards for passenger cars and light trucks and establishes new standards, all covering model years 2021 through 2026. More specifically, the NHTSA set new Corporate Average Fuel Economy standards for model years 2022 through 2026 and amended its 2021 model year Corporate Average Fuel Economy standards, and the USEPA amended its CO<sub>2</sub> emissions standards for model years 2021 and later.

## State Regulations

### *Assembly Bill 1575, Warren-Alquist Act*

In 1975, largely in response to the oil crisis of the 1970s, the State Legislature adopted Assembly Bill (AB) 1575 (also known as the Warren-Alquist Act), which created the CEC. The statutory mission of the CEC is to forecast future energy needs; license power plants of 50 megawatts (MW) or larger; develop energy technologies and renewable energy resources; plan for and direct State responses to energy emergencies; and, perhaps most importantly, promote energy efficiency through the adoption and enforcement of appliance and building energy efficiency standards. AB 1575 also amended Public Resources Code (PRC) Section 21100(b)(3) and *State CEQA Guidelines* Section 15126.4 to require Environmental Impact Reports (EIRs) to include, where relevant, mitigation measures proposed to minimize the wasteful, inefficient, and unnecessary consumption of energy caused by a project. Thereafter, the State Resources Agency created Appendix F to the *State CEQA Guidelines*. Appendix F assists EIR preparers in determining whether a project will result in the inefficient, wasteful, and unnecessary consumption of energy. Appendix F of the *State CEQA Guidelines* also states that the goal of conserving energy implies the wise and efficient use of energy and the means of achieving this goal, including (1) decreasing overall per capita energy consumption; (2) decreasing reliance on fossil fuels such as coal, natural gas, and oil; and (3) increasing reliance on renewable energy sources.

### *Senate Bill 1389, Energy: Planning and Forecasting*

In 2002, the State Legislature passed Senate Bill (SB) 1389, which required the CEC to develop an integrated energy plan every 2 years for electricity, natural gas, and transportation fuels for the California Energy Policy Report. The plan calls for the State to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the least environmental and energy costs. To further this policy, the plan identifies a number of strategies, including assistance to public agencies and fleet operators in implementing incentive programs for zero emission vehicles (ZEVs) and their infrastructure needs, and encouragement of urban designs that reduce vehicle miles traveled (VMT) and accommodate pedestrian and bicycle access.

In compliance with the requirements of SB 1389, the CEC adopts an Integrated Energy Policy Report every 2 years and an update every other year. CEC approved the 2020 Integrated Energy Policy Report in March 2021.<sup>1</sup> The 2020 Integrated Energy Policy Report covers a broad range of topics, including decarbonizing buildings, integrating renewables, energy efficiency, energy equity, integrating renewable energy, updates on Southern California electricity reliability, climate

<sup>1</sup> CEC. 2020. 2020 Integrated Energy Policy Report. Docket No. 20-IEPR-01.



adaptation activities for the energy sector, natural gas assessment, transportation energy demand forecast, and the California Energy Demand Forecast.

### *Renewable Portfolio Standard*

SB 1078 established the California Renewable Portfolio Standards program in 2002. SB 1078 initially required that 20 percent of electricity retail sales be served by renewable resources by 2017; however, this standard has become more stringent over time. In 2006, SB 107 accelerated the standard by requiring that the 20 percent mandate be met by 2010. In April 2011, SB 2 required that 33 percent of electricity retail sales be served by renewable resources by 2020. In 2015, SB 350 established tiered increases to the Renewable Portfolio Standards of 40 percent by 2024, 45 percent by 2027, and 50 percent by 2030. In 2018, SB 100 increased the requirement to 60 percent by 2030 and required that all the State's electricity come from carbon-free resources by 2045. SB 100 took effect on January 1, 2019.<sup>1</sup>

### *Title 24, California Building Code*

Energy consumption by new buildings in California is regulated by the Building Energy Efficiency Standards, embodied in Title 24 of the California Code of Regulations (CCR), known as the California Building Code (CBC). The CEC first adopted the Building Energy Efficiency Standards for Residential and Nonresidential Buildings in 1978 in response to a legislative mandate to reduce energy consumption in the State. The CBC is updated every 3 years, and the current 2019 CBC went into effect on January 1, 2020. The efficiency standards apply to both new construction and rehabilitation of both residential and non-residential buildings, and regulate energy consumed for heating, cooling, ventilation, water heating, and lighting. The building efficiency standards are enforced through the local building permit process. Local government agencies may adopt and enforce energy standards for new buildings, provided these standards meet or exceed those provided in CCR Title 24.

### *California Green Building Standards Code (CALGreen Code)*

In 2010, the California Building Standards Commission (CBSC) adopted Part 11 of the Title 24 Building Energy Efficiency Standards, referred to as the California Green Building Standards Code (CALGreen Code). The CALGreen Code took effect on January 1, 2011. The CALGreen Code is updated on a regular basis, with the most recent update consisting of the 2019 CALGreen Code standards that became effective January 1, 2020. The CALGreen Code established mandatory measures for residential and non-residential building construction and encouraged sustainable construction practices in the following five categories: (1) planning and design, (2) energy efficiency, (3) water efficiency and conservation, (4) material conservation and resource efficiency, and (5) indoor environmental quality. Although the CALGreen Code was adopted as part of the State's efforts to reduce greenhouse gas (GHG) emissions, the CALGreen Code standards have co-benefits of reducing energy consumption from residential and non-residential buildings subject to the standard.

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<sup>1</sup> California Public Utilities Commission (CPUC). 2019. Renewables Portfolio Standard Program. Website: [cpuc.ca.gov/rps](http://cpuc.ca.gov/rps) (accessed December 2021).

## Local Regulations

### *General Plan*

The City of Newport Beach addresses energy in the Natural Resources Element of the Newport Beach General Plan.<sup>1</sup> The Natural Resources Element contains goals and policies that work to increase energy efficiency in City facilities and operations and in private developments. The following policies are applicable to the proposed project:

- **Policy NR 24.1: Incentives for Energy Conservation.** Develop incentives that encourage the use of energy conservation strategies by private and public developments.
- **Policy NR 24.2: Energy-Efficient Design Features.** Promote energy-efficient design features.
- **Policy NR 24.3: Incentives for Green Building Program Implementation.** Promote or provide incentives for “Green Building” programs that go beyond the requirements of Title 24 of the California Administrative Code and encourage energy efficient design elements as appropriate to achieve “green building” status.
- **Policy NR 24.4: Incentives for Provision of LEED Certified Buildings.** Provide incentives for implementing Leadership in Energy and Environmental Design (LEED) certified buildings such as fee waivers, bonus densities, and/or awards recognition programs.

### *Energy Action Plan*

The City of Newport Beach has an Energy Action Plan (EAP)<sup>2</sup>, which identifies the City’s vision and goals on achieving energy efficiency in local government facilities and in the community. The driving force for City of Newport Beach's energy efficiency efforts includes demonstrating leadership through the implementation of cost-effective energy efficiency improvements in their own facilities, minimizing costs associated with energy and utilities, and protecting the environment. The EAP is intended to guide the City to reduce GHG emissions by lowering municipal and communitywide energy use.

<sup>1</sup> Newport Beach, City of. 2006. City of Newport Beach General Plan. July 25.

<sup>2</sup> Newport Beach, City of. 2013. City of Newport Beach Energy Action Plan (EAP). July.

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## THRESHOLDS OF SIGNIFICANCE

While no quantitative thresholds related to energy are included in the *State CEQA Guidelines*, the Guidelines indicate that a project would normally have a significant adverse energy impact if project-generated pollutant emissions would:

- Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation; or
- Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

## IMPACTS ANALYSIS

This section discusses energy use resulting from implementation of the proposed project and evaluates whether the proposed project would result in the wasteful, inefficient, or unnecessary consumption of energy resources or conflict with any applicable plans for renewable energy and energy efficiency.

### CONSUMPTION OF ENERGY RESOURCES

#### **General Plan EIR Significance Determination: No Impact.**

As discussed in the General Plan EIR, implementation of the General Plan would increase the use of electricity in the project area, in particular, the demand for electricity for light, heat, and air conditioning. However, the General Plan EIR determined that the electricity demand associated with implementation of the General Plan is within the capacity limitations of the electrical facilities serving the City. Therefore, the General Plan EIR determined that no impact would result.

In addition, the General Plan EIR determined that SoCalGas has indicated that an adequate supply of natural gas is currently available to serve additional development, and that the natural gas level of service provided to the City would not be impaired by buildout under the General Plan. Therefore, the General Plan EIR concluded that no impact would result.

#### **Project-Specific Analysis and Significance Determination: No Impact; no new or substantially more severe significant impact.**

This analysis evaluates the proposed project's potential to increase the demand for energy through day-to-day operations and fuel consumption associated with project construction.

#### **Construction Energy Usage**

Demolition of the proposed project is anticipated to last approximately 6 months, and construction of the proposed project is anticipated to last approximately 36 months, and would require energy for activities such as the manufacture and transportation of building materials, demolition and grading activities, and building construction. Construction of the proposed project would require electricity to power construction-related equipment but would not involve the consumption of natural gas. The construction-related equipment, including forklifts, would not be powered by natural gas, and no natural gas demand is anticipated during construction.

Transportation energy represents the largest energy use during construction and would occur from the transport and use of construction equipment, delivery vehicles and haul trucks, and construction worker vehicles that would use petroleum fuels (e.g., diesel fuel and/or gasoline). Therefore, the analysis of energy use during construction focuses on fuel consumption. Construction trucks and vendor trucks hauling materials to and from the project site would be anticipated to use diesel fuel, whereas construction workers traveling to and from the project site would be anticipated to use gasoline-powered vehicles. Fuel consumption from transportation uses depends on the type and number of trips, VMT, the fuel efficiency of the vehicles, and the travel mode.

Construction emissions were estimated for the project using CalEEMod. As discussed in the Project Description, demolition of the proposed project is anticipated to last 6 months, and construction would start December 31, 2022, and occur for 36 months, ending December 31, 2022, which was included in CalEEMod. The proposed project would require the demolition of approximately 263,194 square feet and the export of 205,700 cubic yards of soil, which were also included in CalEEMod.

Estimates of fuel consumption (diesel fuel and gasoline) from construction equipment, construction trucks, and construction worker vehicles were based on default construction equipment assumptions and trip estimates from CalEEMod and fuel efficiencies from EMFAC2021. Fuel consumption estimates are presented in Table A. CalEEMod output sheets are included in Appendix A and detailed energy calculations are included in Appendix B.

**Table A: Proposed Project Energy Consumption Estimates During Construction**

Energy Type	Total Energy Consumption	Percentage Increase Countywide
Diesel Fuel (total gallons)	384,165	0.25%
Gasoline (total gallons)	247,164	0.02%

Source: Compiled by LSA (February 2022).

As indicated in Table A, the project would consume approximately 384,165 gallons of diesel fuel and approximately 247,165 gallons of gasoline during construction. Based on fuel consumption obtained from EMFAC2021, approximately 154.1 million gallons of diesel and approximately 1.3 billion gallons of gasoline will be consumed from vehicle trips in Orange County in 2021. Therefore, construction of the proposed project would increase the annual construction generated fuel use in Orange County by approximately 0.25 percent for diesel fuel and 0.02 percent for gasoline. As such, project construction would have a negligible effect on local and regional energy supplies. Furthermore, impacts related to energy use during construction would be temporary and relatively small in comparison to Orange County’s overall use of the State’s available energy resources. No unusual project characteristics would necessitate the use of construction equipment that would be less energy efficient than at comparable construction sites in the region or the State. In addition, construction activities are not anticipated to result in an inefficient use of energy as gasoline and diesel fuel would be supplied by construction contractors who would conserve the use of their supplies to minimize their costs on the project. The project would not cause or result in the need for additional energy facilities or an additional or expanded delivery system.

For these reasons, fuel consumption during construction would not be inefficient, wasteful, or unnecessary.

### Operational Energy Usage

Operational energy use is typically associated with natural gas use, electricity consumption, and fuel used for vehicle trips associated with a project. Energy consumption was estimated for the proposed project using default energy intensities by land use type in CalEEMod for existing conditions and the proposed project. As discussed in the Project Description, the proposed project would convert 159 hotel rooms to 159 hotel-branded residences and associated parking. Therefore, the existing conditions analysis was conducted using land use codes *Hotel, Enclosed Parking Structure with*

*Elevator, and Other Non-Asphalt Surfaces.* The proposed project analysis was conducted using land use codes *Apartments High Rise, Enclosed Parking Structure with Elevator, and Other Non-Asphalt Surfaces.* Trip generation rates used in CalEEMod for the project were based on the project's Trip Generation Letter<sup>1</sup>, which identifies that the existing conditions typically generate approximately 1,271 average daily trips and the proposed project would generate approximately 722 average daily trips. In addition, consistent with the plans prepared for the project, this analysis assumed use of an emergency diesel generator, only natural gas hearth (no wood burning), water-efficient irrigation systems, and use of water efficient landscape. When project-specific data were not available, default assumptions from CalEEMod were used in the analysis.

As identified above, the proposed project would result in a net decrease in vehicle trips; therefore, the proposed project would not result in an increase in gasoline or diesel fuel consumption during project operation. The proposed project would also require a diesel emergency backup generator; however, diesel consumption associated with the emergency backup generator is expected to be minimal and would nominally increase annual diesel fuel use in Orange County. Energy use consumed during operation of the proposed project would be associated with electricity and natural gas consumption. Electricity and natural gas usage estimates associated with the proposed project and existing conditions are shown in Table B. The proposed project would comply with the current CALGreen Code and the Energy Efficiency Code regarding energy conservation and green building standards, which is accounted for in this analysis. CalEEMod output sheets are included in Appendix A and detailed energy calculations are included in Appendix B.

As shown in Table B, the estimated potential net increase in electricity demand associated with the operation of the proposed project is 622,911 kWh per year. Total electricity demand in Orange County in 2020 was approximately 19,733 GWh (19,733,139,603 kWh). Therefore, operation of the proposed project would negligibly increase the annual electricity consumption in Orange County by less than 0.01 percent. Based on the negligible increase in annual electricity consumption, it is assumed that SCE has sufficient resources that would be adequate to serve the proposed project.

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<sup>1</sup> Pirzadeh Associates, Inc. 2022. Newport Beach Marriott Hotel and Spa Trip Generation Letter. January 26.

**Table B: Energy Consumption Estimates During Operation**

Energy Type	Annual Energy Consumption	Percentage Increase Countywide
<b>Existing Conditions</b>		
Existing Electricity Consumption (kWh/year)	1,744,878	-
Existing Natural Gas Consumption (therms/year)	22,854	-
<b>Proposed Project</b>		
Project Electricity Consumption (kWh/year)	2,367,789	-
Project Natural Gas Consumption (therms/year)	17,732	-
<b>Net Operational Electricity Consumption (kWh/year)</b>	<b>622,911</b>	<b>&lt;0.01%</b>
<b>Net Operational Natural Gas Consumption (therms/year)</b>	<b>-5,122</b>	<b>0.00%</b>

Source: Compiled by LSA (February 2022).  
kWh = kilowatt-hours

As shown in Table B, the proposed project would result in a net decrease of 5,122 therms per year of natural gas demand. Total natural gas consumption in Orange County in 2020 was approximately 595 million therms (594,632,076 therms). Operation of the proposed project would not increase the annual natural gas consumption in Orange County. Based on the negligible increase in annual natural gas consumption, it is assumed that SoCalGas has sufficient resources that would be adequate to serve the proposed project.

Electrical and natural gas demand associated with project operations would not be considered inefficient, wasteful, or unnecessary. The project would be required to adhere to all federal, State, and local requirements for energy efficiency, which would substantially reduce energy usage. In addition, the proposed project is consistent with the project site’s General Plan designation as Visitor Serving Commercial (CV) and Anomaly Area 43 designation. As such, it is assumed that the project’s energy impacts have already been accounted for in the General Plan EIR. The project would not cause or result in the need for additional energy facilities or an additional or expanded delivery system. Therefore, the proposed project would not lead to new or substantially more severe significant impacts associated with energy demand beyond those identified in the General Plan EIR.

**CONSISTENCY WITH PLANS FOR RENEWABLE ENERGY OR ENERGY EFFICIENCY**

**General Plan EIR Significance Determination.**

The General Plan EIR did not evaluate consistency with plans for renewable energy or energy efficiency.

**Project-Specific Analysis and Significance Determination: No Impact; no new or substantially more severe significant impact.**

As identified above, the City has an adopted EAP that outlines various measures and strategizes numerous methods on how the City’s long term vision can be achieved. The EAP goals include:

- Meet and exceed AB 32 energy reduction goals;
- Be an example for energy efficiency and sustainability at City facilities;
- Continue interacting, educating, and informing the community about energy efficiency and GHG emissions;
- Explore the newest green technologies and methods to decrease future energy dependency;
- Explore renewable energy recourses (not limited to solar) and possible financing based on available grants/rebates;
- Enhance energy efficiency and operations in existing buildings through systematic commissioning strategies or independent energy efficiency studies; and
- Evaluate all the suggested energy efficiency action measures presented in this EAP, establish a priority for implementation, and determine possible funding sources.

The proposed project would meet the latest California CalGreen Code, which include the latest in energy efficiency standards, consistent with the goals of the City's EAP. The City's EAP goals are primarily applicable to City facilities; therefore, the proposed project was analyzed for consistency with the State's 2020 Integrated Energy Policy Report. The plan calls for the State to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the least environmental and energy costs. To further this policy, the plan identifies a number of strategies, including assistance to public agencies and fleet operators in implementing incentive programs for ZEVs and their infrastructure needs, and encouragement of urban designs that reduce VMT and accommodate pedestrian and bicycle access. In addition, the Integrated Energy Policy Report provides the results of the CEC's assessments of a variety of energy issues facing California.

As indicated above, energy usage on the project site during construction would be temporary in nature and would be relatively small in comparison to the overall use in the County. In addition, energy usage associated with operation of the proposed project would be relatively small in comparison to the overall use in Orange County, and the State's available energy resources. Therefore, energy impacts at the regional level would be negligible. Because California's energy conservation planning actions are conducted at a regional level, and because the proposed project's total impact on regional energy supplies would be minor, the proposed project would not conflict with or obstruct California's energy conservation plans as described in the CEC's Integrated Energy Policy Report. Additionally, the proposed project would not result in the inefficient, wasteful, and unnecessary consumption of energy. Therefore, the proposed project would not lead to new or substantially more severe significant impacts associated with consistency with plans for renewable energy or energy efficiency.

## CUMULATIVE ANALYSIS

**General Plan EIR Significance Determination: Less than Significant Impact.**



As discussed in the General Plan EIR, development under the General Plan, in combination with all other development within the SCE and SoCalGas service areas, would result in the permanent and continued use of electricity and natural gas resources. However, as both SCE and SoCalGas are reactive providers, which supply electricity and natural gas services to customers at their request, the General Plan EIR assumed that they would be able to service future developments under the General Plan buildout in combination with all projected future developments within their service boundaries. Therefore, the General Plan EIR found that the General Plan's contribution to these impacts would not be cumulatively considerable and cumulative impacts to energy demand within SCE and SoCalGas service boundaries would be less than significant.

**Project-Specific Analysis and Significance Determination: No Impact; no new or substantially more severe significant impact.**

The geographic area for cumulative analysis of electricity is that of the SCE service area, while the geographic area for cumulative analysis of natural gas service is that of the SoCalGas service area. The proposed project would result in an increased services demand in electricity and natural gas. Although the proposed project would result in a net increase in demand for electricity, this increase would not require SCE to expand or construct infrastructure that could cause substantial environmental impacts. As discussed previously, total electricity consumption in the SCE service area in 2020 was 83,633 GWh. By 2030, consumption is anticipated to increase by approximately 12,000 GWh for the low-demand scenario and by 22,000 GWh for the high-demand scenario.<sup>1</sup> While this forecast represents a large increase in electricity consumption, the proposed project's share of cumulative consumption would be negligible. The proposed project, in combination with cumulative development, is well within SCE's systemwide net annual increase in electricity supplies over the 2018 to 2030 period, and there are sufficient planned electricity supplies in the region for estimated net increases in energy demands.

Similarly, additional natural gas infrastructure is not anticipated due to cumulative development. Total natural gas consumption in the SoCalGas service area in 2020 was 5,231 million therms. Between 2018 and 2030, total natural gas consumption in the SoCalGas service area is forecast to remain steady for the low- and mid-demand scenarios and to increase by approximately 650 million therms in the high-demand scenario due to intense energy efficiency efforts.<sup>2</sup> The proposed project's share of cumulative consumption of natural gas in the SoCalGas service area would be negligible. It is anticipated that SoCalGas would be able to meet the natural gas demand of the related projects without additional facilities. In addition, both SCE and SoCalGas demand forecasts include the growth contemplated by the proposed project and the related projects. Increased energy efficiency to comply with building energy efficiency standards will reduce energy consumption on a per-square-foot basis. Furthermore, utility companies are required to increase their renewable energy sources to meet the Renewable Portfolio Standards mandate of 60 percent renewable supplies by 2030. SCE and SoCalGas plan to continue to provide reliable service to their customers and upgrade their distribution systems as necessary to meet future demand. Therefore,

<sup>1</sup> CEC. 2018. *California Energy Demand, 2018–2030 Revised Forecast*. Publication Number: CEC-200-2018-002-CMF. February.

<sup>2</sup> Ibid.

the proposed project would not lead to new or substantially more severe significant energy impacts beyond those identified in the General Plan EIR.

## CONCLUSION

Based on the analysis presented above, energy demand associated with project construction and operations would not be considered inefficient, wasteful, or unnecessary. In addition, the project would not cause or result in the need for additional energy facilities or an additional or expanded delivery system. Furthermore, the proposed project would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency. The project would also be required to adhere to all federal, State, and local requirements for energy efficiency, which would substantially reduce energy usage. Therefore, the proposed project would not lead to new or substantially more severe significant energy impacts beyond those identified in the General Plan EIR.

# APPENDIX A

## CALEEMOD OUTPUT SHEETS

The Ritz-Carlton Residences - Orange County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**The Ritz-Carlton Residences  
Orange County, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	808.00	Space	1.03	323,200.00	0
Other Non-Asphalt Surfaces	1.17	Acre	1.17	50,965.20	0
Apartments High Rise	159.00	Dwelling Unit	0.57	414,999.00	360

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	30
<b>Climate Zone</b>	8	<b>Operational Year</b>	2025		
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MW hr)</b>	390.98	<b>CH4 Intensity (lb/MW hr)</b>	0.033	<b>N2O Intensity (lb/MW hr)</b>	0.004

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics -

Land Use - Based on the Project Description provided to LSA on January 21, 2022. Other non-asphalt surfaces includes the vehicle entry, pedestrian walk, landscaping, and pool deck.

Construction Phase - 6 months of demolition then construction start 12/31/22, 36 month duration, complete 12/31/25.

Demolition - The project would demolish approximately 263,194 square feet.

Grading - The project would require the export of 205,700 cubic yards of soil.

Vehicle Trips - Trip rates based on the average daily trip generation provided in the project's Trip Generation letter dated January 26, 2022.

Woodstoves - Assuming no woodstoves or wood-burning hearths.

Construction Off-road Equipment Mitigation - Assuming use of Tier 2 construction equipment and compliance with SCAQMD Rule 403: Fugitive Dust measures.

Mobile Land Use Mitigation -



The Ritz-Carlton Residences - Orange County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstructionPhase	NumDays	20.00	180.00
tblConstructionPhase	NumDays	3.00	10.00
tblConstructionPhase	NumDays	6.00	100.00
tblConstructionPhase	NumDays	220.00	770.00
tblConstructionPhase	NumDays	10.00	345.00
tblConstructionPhase	NumDays	10.00	40.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	PhaseEndDate	6/28/2022	12/30/2022
tblConstructionPhase	PhaseEndDate	7/1/2022	1/11/2023
tblConstructionPhase	PhaseEndDate	7/11/2022	5/8/2023
tblConstructionPhase	PhaseEndDate	5/15/2023	10/22/2025
tblConstructionPhase	PhaseEndDate	6/12/2023	12/31/2025
tblConstructionPhase	PhaseEndDate	5/29/2023	12/8/2025
tblConstructionPhase	PhaseStartDate	6/1/2022	6/4/2022
tblConstructionPhase	PhaseStartDate	6/29/2022	12/31/2022
tblConstructionPhase	PhaseStartDate	7/2/2022	1/12/2023
tblConstructionPhase	PhaseStartDate	7/12/2022	5/9/2023
tblConstructionPhase	PhaseStartDate	5/30/2023	11/25/2024

The Ritz-Carlton Residences - Orange County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

tblConstructionPhase	PhaseStartDate	5/16/2023	10/23/2025
tblGrading	MaterialExported	0.00	205,700.00
tblLandUse	LandUseSquareFeet	159,000.00	414,999.00
tblLandUse	LotAcreage	7.27	1.03
tblLandUse	LotAcreage	2.56	0.57
tblLandUse	Population	455.00	360.00
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	350.00
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	0.13
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
tblVehicleTrips	ST_TR	4.53	4.54
tblVehicleTrips	SU_TR	3.59	4.54
tblVehicleTrips	WD_TR	4.45	4.54

**2.0 Emissions Summary**

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The Ritz-Carlton Residences - Orange County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**2.1 Overall Construction**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.1586	1.6045	1.3246	2.6500e-003	0.1607	0.0765	0.2371	0.0267	0.0715	0.0982	0.0000	237.6746	237.6746	0.0524	6.1300e-003	240.8138
2023	0.3600	4.1300	3.3872	0.0149	0.9533	0.1079	1.0611	0.3308	0.1020	0.4329	0.0000	1,436.9935	1,436.9935	0.1614	0.1458	1,484.4638
2024	0.5067	2.5600	3.6075	9.9800e-003	0.5554	0.0901	0.6456	0.1493	0.0863	0.2355	0.0000	905.6584	905.6584	0.0818	0.0394	919.4364
2025	1.5741	2.2792	3.5377	9.3700e-003	0.5360	0.0786	0.6146	0.1438	0.0753	0.2190	0.0000	851.9421	851.9421	0.0779	0.0324	863.5409
<b>Maximum</b>	<b>1.5741</b>	<b>4.1300</b>	<b>3.6075</b>	<b>0.0149</b>	<b>0.9533</b>	<b>0.1079</b>	<b>1.0611</b>	<b>0.3308</b>	<b>0.1020</b>	<b>0.4329</b>	<b>0.0000</b>	<b>1,436.9935</b>	<b>1,436.9935</b>	<b>0.1614</b>	<b>0.1458</b>	<b>1,484.4638</b>



The Ritz-Carlton Residences - Orange County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**2.1 Overall Construction**

**Mitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.0860	2.0192	1.4573	2.6500e-003	0.0850	0.0657	0.1507	0.0155	0.0656	0.0811	0.0000	237.6744	237.6744	0.0524	6.1300e-003	240.8135
2023	0.2439	4.9895	3.6978	0.0149	0.7477	0.1224	0.8702	0.2352	0.1218	0.3570	0.0000	1,436.993 2	1,436.993 2	0.1614	0.1458	1,484.463 4
2024	0.4036	3.7122	3.8132	9.9800e-003	0.5554	0.1346	0.6900	0.1493	0.1343	0.2836	0.0000	905.6580	905.6580	0.0818	0.0394	919.4360
2025	1.4955	3.6465	3.7445	9.3700e-003	0.5360	0.1336	0.6696	0.1438	0.1334	0.2771	0.0000	851.9417	851.9417	0.0779	0.0324	863.5405
<b>Maximum</b>	<b>1.4955</b>	<b>4.9895</b>	<b>3.8132</b>	<b>0.0149</b>	<b>0.7477</b>	<b>0.1346</b>	<b>0.8702</b>	<b>0.2352</b>	<b>0.1343</b>	<b>0.3570</b>	<b>0.0000</b>	<b>1,436.993 2</b>	<b>1,436.993 2</b>	<b>0.1614</b>	<b>0.1458</b>	<b>1,484.463 4</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>14.25</b>	<b>-35.88</b>	<b>-7.22</b>	<b>0.00</b>	<b>12.75</b>	<b>-29.22</b>	<b>6.96</b>	<b>16.43</b>	<b>-35.83</b>	<b>-1.33</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	6-1-2022	8-31-2022	0.7414	0.8856
2	9-1-2022	11-30-2022	0.7593	0.9067
3	12-1-2022	2-28-2023	1.3251	1.4596
4	3-1-2023	5-31-2023	1.5989	1.7413
5	6-1-2023	8-31-2023	0.7652	0.9882
6	9-1-2023	11-30-2023	0.7631	0.9837
7	12-1-2023	2-29-2024	0.7397	0.9839
8	3-1-2024	5-31-2024	0.7280	0.9871

The Ritz-Carlton Residences - Orange County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

9	6-1-2024	8-31-2024	0.7249	0.9840
10	9-1-2024	11-30-2024	0.7474	1.0065
11	12-1-2024	2-28-2025	1.0557	1.3754
12	3-1-2025	5-31-2025	1.0576	1.3979
13	6-1-2025	8-31-2025	1.0543	1.3946
14	9-1-2025	9-30-2025	0.3438	0.4548
		Highest	1.5989	1.7413

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.2298	0.0602	2.6592	2.6700e-003		0.1610	0.1610		0.1610	0.1610	16.8888	35.1531	52.0419	0.0530	1.1500e-003	53.7081
Energy	9.5600e-003	0.0817	0.0348	5.2000e-004		6.6000e-003	6.6000e-003		6.6000e-003	6.6000e-003	0.0000	514.5193	514.5193	0.0373	6.0300e-003	517.2477
Mobile	0.3360	0.3744	3.4690	8.1200e-003	0.9292	5.5800e-003	0.9348	0.2480	5.1900e-003	0.2532	0.0000	769.6589	769.6589	0.0457	0.0315	780.1911
Stationary	0.0144	0.0401	0.0366	7.0000e-005		2.1100e-003	2.1100e-003		2.1100e-003	2.1100e-003	0.0000	6.6640	6.6640	9.3000e-004	0.0000	6.6873
Waste						0.0000	0.0000		0.0000	0.0000	14.8468	0.0000	14.8468	0.8774	0.0000	36.7822
Water						0.0000	0.0000		0.0000	0.0000	3.2866	36.7904	40.0770	0.3407	8.3500e-003	51.0811
<b>Total</b>	<b>2.5896</b>	<b>0.5565</b>	<b>6.1996</b>	<b>0.0114</b>	<b>0.9292</b>	<b>0.1752</b>	<b>1.1045</b>	<b>0.2480</b>	<b>0.1749</b>	<b>0.4229</b>	<b>35.0222</b>	<b>1,362.7856</b>	<b>1,397.8078</b>	<b>1.3550</b>	<b>0.0470</b>	<b>1,445.6975</b>

The Ritz-Carlton Residences - Orange County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**2.2 Overall Operational**

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.7124	0.0486	1.6611	2.8000e-004		0.0115	0.0115		0.0115	0.0115	0.0000	37.0622	37.0622	3.2800e-003	6.3000e-004	37.3318
Energy	9.5600e-003	0.0817	0.0348	5.2000e-004		6.6000e-003	6.6000e-003		6.6000e-003	6.6000e-003	0.0000	514.5193	514.5193	0.0373	6.0300e-003	517.2477
Mobile	0.2786	0.2792	2.5798	5.6200e-003	0.6375	3.9800e-003	0.6414	0.1702	3.7000e-003	0.1739	0.0000	532.9663	532.9663	0.0353	0.0236	540.8790
Stationary	0.0144	0.0401	0.0366	7.0000e-005		2.1100e-003	2.1100e-003		2.1100e-003	2.1100e-003	0.0000	6.6640	6.6640	9.3000e-004	0.0000	6.6873
Waste						0.0000	0.0000		0.0000	0.0000	14.8468	0.0000	14.8468	0.8774	0.0000	36.7822
Water						0.0000	0.0000		0.0000	0.0000	3.2866	36.0054	39.2920	0.3406	8.3400e-003	50.2921
<b>Total</b>	<b>2.0149</b>	<b>0.4497</b>	<b>4.3123</b>	<b>6.4900e-003</b>	<b>0.6375</b>	<b>0.0242</b>	<b>0.6617</b>	<b>0.1702</b>	<b>0.0239</b>	<b>0.1941</b>	<b>18.1334</b>	<b>1,127.2171</b>	<b>1,145.3504</b>	<b>1.2948</b>	<b>0.0386</b>	<b>1,189.2201</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>22.19</b>	<b>19.19</b>	<b>30.44</b>	<b>42.97</b>	<b>31.40</b>	<b>86.18</b>	<b>40.09</b>	<b>31.40</b>	<b>86.31</b>	<b>54.10</b>	<b>48.22</b>	<b>17.29</b>	<b>18.06</b>	<b>4.44</b>	<b>17.96</b>	<b>17.74</b>

**3.0 Construction Detail**

**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/4/2022	12/30/2022	6	180	
2	Site Preparation	Site Preparation	12/31/2022	1/11/2023	6	10	

The Ritz-Carlton Residences - Orange County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

3	Grading	Grading	1/12/2023	5/8/2023	6	100
4	Building Construction	Building Construction	5/9/2023	10/22/2025	6	770
5	Paving	Paving	10/23/2025	12/8/2025	6	40
6	Architectural Coating	Architectural Coating	11/25/2024	12/31/2025	6	345

**Acres of Grading (Site Preparation Phase): 15**

**Acres of Grading (Grading Phase): 100**

**Acres of Paving: 2.2**

**Residential Indoor: 840,373; Residential Outdoor: 280,124; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 22,450 (Architectural Coating – sqft)**

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Scrapers	1	8.00	367	0.48
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	8.00	9	0.56

The Ritz-Carlton Residences - Orange County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	1,197.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	25,713.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	272.00	78.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	54.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

The Ritz-Carlton Residences - Orange County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.2 Demolition - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1295	0.0000	0.1295	0.0196	0.0000	0.0196	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1520	1.4960	1.2564	2.1700e-003		0.0754	0.0754		0.0705	0.0705	0.0000	189.6992	189.6992	0.0483	0.0000	190.9077
<b>Total</b>	<b>0.1520</b>	<b>1.4960</b>	<b>1.2564</b>	<b>2.1700e-003</b>	<b>0.1295</b>	<b>0.0754</b>	<b>0.2050</b>	<b>0.0196</b>	<b>0.0705</b>	<b>0.0901</b>	<b>0.0000</b>	<b>189.6992</b>	<b>189.6992</b>	<b>0.0483</b>	<b>0.0000</b>	<b>190.9077</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.4000e-003	0.0980	0.0263	3.6000e-004	0.0103	7.1000e-004	0.0110	2.8200e-003	6.8000e-004	3.4900e-003	0.0000	36.7123	36.7123	3.5000e-003	5.8800e-003	38.5521
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.5300e-003	2.6500e-003	0.0367	1.1000e-004	0.0128	7.0000e-005	0.0129	3.4100e-003	6.0000e-005	3.4800e-003	0.0000	10.1511	10.1511	2.5000e-004	2.5000e-004	10.2330
<b>Total</b>	<b>5.9300e-003</b>	<b>0.1007</b>	<b>0.0630</b>	<b>4.7000e-004</b>	<b>0.0231</b>	<b>7.8000e-004</b>	<b>0.0239</b>	<b>6.2300e-003</b>	<b>7.4000e-004</b>	<b>6.9700e-003</b>	<b>0.0000</b>	<b>46.8634</b>	<b>46.8634</b>	<b>3.7500e-003</b>	<b>6.1300e-003</b>	<b>48.7850</b>

The Ritz-Carlton Residences - Orange County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.2 Demolition - 2022**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0583	0.0000	0.0583	8.8300e-003	0.0000	8.8300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0797	1.9085	1.3874	2.1700e-003		0.0646	0.0646		0.0646	0.0646	0.0000	189.6989	189.6989	0.0483	0.0000	190.9075
<b>Total</b>	<b>0.0797</b>	<b>1.9085</b>	<b>1.3874</b>	<b>2.1700e-003</b>	<b>0.0583</b>	<b>0.0646</b>	<b>0.1229</b>	<b>8.8300e-003</b>	<b>0.0646</b>	<b>0.0735</b>	<b>0.0000</b>	<b>189.6989</b>	<b>189.6989</b>	<b>0.0483</b>	<b>0.0000</b>	<b>190.9075</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.4000e-003	0.0980	0.0263	3.6000e-004	0.0103	7.1000e-004	0.0110	2.8200e-003	6.8000e-004	3.4900e-003	0.0000	36.7123	36.7123	3.5000e-003	5.8800e-003	38.5521
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.5300e-003	2.6500e-003	0.0367	1.1000e-004	0.0128	7.0000e-005	0.0129	3.4100e-003	6.0000e-005	3.4800e-003	0.0000	10.1511	10.1511	2.5000e-004	2.5000e-004	10.2330
<b>Total</b>	<b>5.9300e-003</b>	<b>0.1007</b>	<b>0.0630</b>	<b>4.7000e-004</b>	<b>0.0231</b>	<b>7.8000e-004</b>	<b>0.0239</b>	<b>6.2300e-003</b>	<b>7.4000e-004</b>	<b>6.9700e-003</b>	<b>0.0000</b>	<b>46.8634</b>	<b>46.8634</b>	<b>3.7500e-003</b>	<b>6.1300e-003</b>	<b>48.7850</b>

The Ritz-Carlton Residences - Orange County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.3 Site Preparation - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					7.9500e-003	0.0000	7.9500e-003	8.6000e-004	0.0000	8.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.9000e-004	7.8300e-003	5.0300e-003	1.0000e-005		3.0000e-004	3.0000e-004		2.7000e-004	2.7000e-004	0.0000	1.0774	1.0774	3.5000e-004	0.0000	1.0861
<b>Total</b>	<b>6.9000e-004</b>	<b>7.8300e-003</b>	<b>5.0300e-003</b>	<b>1.0000e-005</b>	<b>7.9500e-003</b>	<b>3.0000e-004</b>	<b>8.2500e-003</b>	<b>8.6000e-004</b>	<b>2.7000e-004</b>	<b>1.1300e-003</b>	<b>0.0000</b>	<b>1.0774</b>	<b>1.0774</b>	<b>3.5000e-004</b>	<b>0.0000</b>	<b>1.0861</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	1.3000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0347	0.0347	0.0000	0.0000	0.0350
<b>Total</b>	<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>1.3000e-004</b>	<b>0.0000</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>4.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.0347</b>	<b>0.0347</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0350</b>



The Ritz-Carlton Residences - Orange County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.3 Site Preparation - 2022**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.5800e-003	0.0000	3.5800e-003	3.9000e-004	0.0000	3.9000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.3000e-004	0.0100	6.8200e-003	1.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004	0.0000	1.0774	1.0774	3.5000e-004	0.0000	1.0861
<b>Total</b>	<b>3.3000e-004</b>	<b>0.0100</b>	<b>6.8200e-003</b>	<b>1.0000e-005</b>	<b>3.5800e-003</b>	<b>2.5000e-004</b>	<b>3.8300e-003</b>	<b>3.9000e-004</b>	<b>2.5000e-004</b>	<b>6.4000e-004</b>	<b>0.0000</b>	<b>1.0774</b>	<b>1.0774</b>	<b>3.5000e-004</b>	<b>0.0000</b>	<b>1.0861</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	1.3000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0347	0.0347	0.0000	0.0000	0.0350
<b>Total</b>	<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>1.3000e-004</b>	<b>0.0000</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>4.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.0347</b>	<b>0.0347</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0350</b>

The Ritz-Carlton Residences - Orange County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.3 Site Preparation - 2023**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					7.9500e-003	0.0000	7.9500e-003	8.6000e-004	0.0000	8.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.8600e-003	0.0643	0.0440	1.1000e-004		2.4400e-003	2.4400e-003		2.2400e-003	2.2400e-003	0.0000	9.6950	9.6950	3.1400e-003	0.0000	9.7734
<b>Total</b>	<b>5.8600e-003</b>	<b>0.0643</b>	<b>0.0440</b>	<b>1.1000e-004</b>	<b>7.9500e-003</b>	<b>2.4400e-003</b>	<b>0.0104</b>	<b>8.6000e-004</b>	<b>2.2400e-003</b>	<b>3.1000e-003</b>	<b>0.0000</b>	<b>9.6950</b>	<b>9.6950</b>	<b>3.1400e-003</b>	<b>0.0000</b>	<b>9.7734</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-004	7.0000e-005	1.0500e-003	0.0000	4.0000e-004	0.0000	4.0000e-004	1.0000e-004	0.0000	1.1000e-004	0.0000	0.3043	0.3043	1.0000e-005	1.0000e-005	0.3066
<b>Total</b>	<b>1.0000e-004</b>	<b>7.0000e-005</b>	<b>1.0500e-003</b>	<b>0.0000</b>	<b>4.0000e-004</b>	<b>0.0000</b>	<b>4.0000e-004</b>	<b>1.0000e-004</b>	<b>0.0000</b>	<b>1.1000e-004</b>	<b>0.0000</b>	<b>0.3043</b>	<b>0.3043</b>	<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>0.3066</b>

The Ritz-Carlton Residences - Orange County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.3 Site Preparation - 2023**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.5800e-003	0.0000	3.5800e-003	3.9000e-004	0.0000	3.9000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9800e-003	0.0901	0.0614	1.1000e-004		2.2400e-003	2.2400e-003		2.2400e-003	2.2400e-003	0.0000	9.6950	9.6950	3.1400e-003	0.0000	9.7734
<b>Total</b>	<b>2.9800e-003</b>	<b>0.0901</b>	<b>0.0614</b>	<b>1.1000e-004</b>	<b>3.5800e-003</b>	<b>2.2400e-003</b>	<b>5.8200e-003</b>	<b>3.9000e-004</b>	<b>2.2400e-003</b>	<b>2.6300e-003</b>	<b>0.0000</b>	<b>9.6950</b>	<b>9.6950</b>	<b>3.1400e-003</b>	<b>0.0000</b>	<b>9.7734</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-004	7.0000e-005	1.0500e-003	0.0000	4.0000e-004	0.0000	4.0000e-004	1.0000e-004	0.0000	1.1000e-004	0.0000	0.3043	0.3043	1.0000e-005	1.0000e-005	0.3066
<b>Total</b>	<b>1.0000e-004</b>	<b>7.0000e-005</b>	<b>1.0500e-003</b>	<b>0.0000</b>	<b>4.0000e-004</b>	<b>0.0000</b>	<b>4.0000e-004</b>	<b>1.0000e-004</b>	<b>0.0000</b>	<b>1.1000e-004</b>	<b>0.0000</b>	<b>0.3043</b>	<b>0.3043</b>	<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>0.3066</b>

The Ritz-Carlton Residences - Orange County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.4 Grading - 2023**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3658	0.0000	0.3658	0.1730	0.0000	0.1730	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0667	0.7234	0.4352	1.0300e-003		0.0302	0.0302		0.0278	0.0278	0.0000	90.5196	90.5196	0.0293	0.0000	91.2515
<b>Total</b>	<b>0.0667</b>	<b>0.7234</b>	<b>0.4352</b>	<b>1.0300e-003</b>	<b>0.3658</b>	<b>0.0302</b>	<b>0.3960</b>	<b>0.1730</b>	<b>0.0278</b>	<b>0.2008</b>	<b>0.0000</b>	<b>90.5196</b>	<b>90.5196</b>	<b>0.0293</b>	<b>0.0000</b>	<b>91.2515</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0261	1.6120	0.5275	7.2200e-003	0.2207	9.8700e-003	0.2306	0.0605	9.4500e-003	0.0700	0.0000	746.2049	746.2049	0.0752	0.1197	783.7577
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4100e-003	1.0100e-003	0.0146	5.0000e-005	5.4900e-003	3.0000e-005	5.5200e-003	1.4600e-003	3.0000e-005	1.4800e-003	0.0000	4.2257	4.2257	1.0000e-004	1.0000e-004	4.2582
<b>Total</b>	<b>0.0275</b>	<b>1.6130</b>	<b>0.5421</b>	<b>7.2700e-003</b>	<b>0.2262</b>	<b>9.9000e-003</b>	<b>0.2361</b>	<b>0.0620</b>	<b>9.4800e-003</b>	<b>0.0715</b>	<b>0.0000</b>	<b>750.4307</b>	<b>750.4307</b>	<b>0.0753</b>	<b>0.1198</b>	<b>788.0159</b>

The Ritz-Carlton Residences - Orange County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.4 Grading - 2023**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1646	0.0000	0.1646	0.0779	0.0000	0.0779	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0313	0.9053	0.6073	1.0300e-003		0.0243	0.0243		0.0243	0.0243	0.0000	90.5195	90.5195	0.0293	0.0000	91.2514
<b>Total</b>	<b>0.0313</b>	<b>0.9053</b>	<b>0.6073</b>	<b>1.0300e-003</b>	<b>0.1646</b>	<b>0.0243</b>	<b>0.1888</b>	<b>0.0779</b>	<b>0.0243</b>	<b>0.1021</b>	<b>0.0000</b>	<b>90.5195</b>	<b>90.5195</b>	<b>0.0293</b>	<b>0.0000</b>	<b>91.2514</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0261	1.6120	0.5275	7.2200e-003	0.2207	9.8700e-003	0.2306	0.0605	9.4500e-003	0.0700	0.0000	746.2049	746.2049	0.0752	0.1197	783.7577
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4100e-003	1.0100e-003	0.0146	5.0000e-005	5.4900e-003	3.0000e-005	5.5200e-003	1.4600e-003	3.0000e-005	1.4800e-003	0.0000	4.2257	4.2257	1.0000e-004	1.0000e-004	4.2582
<b>Total</b>	<b>0.0275</b>	<b>1.6130</b>	<b>0.5421</b>	<b>7.2700e-003</b>	<b>0.2262</b>	<b>9.9000e-003</b>	<b>0.2361</b>	<b>0.0620</b>	<b>9.4800e-003</b>	<b>0.0715</b>	<b>0.0000</b>	<b>750.4307</b>	<b>750.4307</b>	<b>0.0753</b>	<b>0.1198</b>	<b>788.0159</b>

The Ritz-Carlton Residences - Orange County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.5 Building Construction - 2023**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1739	1.3828	1.4428	2.5400e-003		0.0623	0.0623		0.0597	0.0597	0.0000	210.8176	210.8176	0.0399	0.0000	211.8143
<b>Total</b>	<b>0.1739</b>	<b>1.3828</b>	<b>1.4428</b>	<b>2.5400e-003</b>		<b>0.0623</b>	<b>0.0623</b>		<b>0.0597</b>	<b>0.0597</b>	<b>0.0000</b>	<b>210.8176</b>	<b>210.8176</b>	<b>0.0399</b>	<b>0.0000</b>	<b>211.8143</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.8500e-003	0.2906	0.1167	1.4200e-003	0.0499	1.4300e-003	0.0513	0.0144	1.3700e-003	0.0158	0.0000	141.8996	141.8996	8.4200e-003	0.0204	148.1824
Worker	0.0780	0.0558	0.8054	2.5100e-003	0.3031	1.5800e-003	0.3047	0.0805	1.4500e-003	0.0819	0.0000	233.3269	233.3269	5.3600e-003	5.5700e-003	235.1197
<b>Total</b>	<b>0.0859</b>	<b>0.3464</b>	<b>0.9221</b>	<b>3.9300e-003</b>	<b>0.3530</b>	<b>3.0100e-003</b>	<b>0.3560</b>	<b>0.0949</b>	<b>2.8200e-003</b>	<b>0.0977</b>	<b>0.0000</b>	<b>375.2265</b>	<b>375.2265</b>	<b>0.0138</b>	<b>0.0260</b>	<b>383.3021</b>

The Ritz-Carlton Residences - Orange County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.5 Building Construction - 2023**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0961	2.0347	1.5639	2.5400e-003		0.0830	0.0830		0.0830	0.0830	0.0000	210.8173	210.8173	0.0399	0.0000	211.8141
<b>Total</b>	<b>0.0961</b>	<b>2.0347</b>	<b>1.5639</b>	<b>2.5400e-003</b>		<b>0.0830</b>	<b>0.0830</b>		<b>0.0830</b>	<b>0.0830</b>	<b>0.0000</b>	<b>210.8173</b>	<b>210.8173</b>	<b>0.0399</b>	<b>0.0000</b>	<b>211.8141</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.8500e-003	0.2906	0.1167	1.4200e-003	0.0499	1.4300e-003	0.0513	0.0144	1.3700e-003	0.0158	0.0000	141.8996	141.8996	8.4200e-003	0.0204	148.1824
Worker	0.0780	0.0558	0.8054	2.5100e-003	0.3031	1.5800e-003	0.3047	0.0805	1.4500e-003	0.0819	0.0000	233.3269	233.3269	5.3600e-003	5.5700e-003	235.1197
<b>Total</b>	<b>0.0859</b>	<b>0.3464</b>	<b>0.9221</b>	<b>3.9300e-003</b>	<b>0.3530</b>	<b>3.0100e-003</b>	<b>0.3560</b>	<b>0.0949</b>	<b>2.8200e-003</b>	<b>0.0977</b>	<b>0.0000</b>	<b>375.2265</b>	<b>375.2265</b>	<b>0.0138</b>	<b>0.0260</b>	<b>383.3021</b>

The Ritz-Carlton Residences - Orange County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.5 Building Construction - 2024**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2508	2.0133	2.2137	3.9300e-003		0.0845	0.0845		0.0809	0.0809	0.0000	326.1109	326.1109	0.0607	0.0000	327.6293
<b>Total</b>	<b>0.2508</b>	<b>2.0133</b>	<b>2.2137</b>	<b>3.9300e-003</b>		<b>0.0845</b>	<b>0.0845</b>		<b>0.0809</b>	<b>0.0809</b>	<b>0.0000</b>	<b>326.1109</b>	<b>326.1109</b>	<b>0.0607</b>	<b>0.0000</b>	<b>327.6293</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0120	0.4482	0.1792	2.1600e-003	0.0772	2.3100e-003	0.0795	0.0223	2.2100e-003	0.0245	0.0000	216.0884	216.0884	0.0132	0.0312	225.7031
Worker	0.1136	0.0775	1.1621	3.7600e-003	0.4688	2.3200e-003	0.4711	0.1245	2.1400e-003	0.1266	0.0000	352.2472	352.2472	7.5300e-003	8.0500e-003	354.8339
<b>Total</b>	<b>0.1255</b>	<b>0.5257</b>	<b>1.3413</b>	<b>5.9200e-003</b>	<b>0.5460</b>	<b>4.6300e-003</b>	<b>0.5506</b>	<b>0.1468</b>	<b>4.3500e-003</b>	<b>0.1511</b>	<b>0.0000</b>	<b>568.3355</b>	<b>568.3355</b>	<b>0.0207</b>	<b>0.0392</b>	<b>580.5370</b>



The Ritz-Carlton Residences - Orange County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.5 Building Construction - 2024**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1487	3.1473	2.4191	3.9300e-003		0.1284	0.1284		0.1284	0.1284	0.0000	326.1105	326.1105	0.0607	0.0000	327.6289
<b>Total</b>	<b>0.1487</b>	<b>3.1473</b>	<b>2.4191</b>	<b>3.9300e-003</b>		<b>0.1284</b>	<b>0.1284</b>		<b>0.1284</b>	<b>0.1284</b>	<b>0.0000</b>	<b>326.1105</b>	<b>326.1105</b>	<b>0.0607</b>	<b>0.0000</b>	<b>327.6289</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0120	0.4482	0.1792	2.1600e-003	0.0772	2.3100e-003	0.0795	0.0223	2.2100e-003	0.0245	0.0000	216.0884	216.0884	0.0132	0.0312	225.7031
Worker	0.1136	0.0775	1.1621	3.7600e-003	0.4688	2.3200e-003	0.4711	0.1245	2.1400e-003	0.1266	0.0000	352.2472	352.2472	7.5300e-003	8.0500e-003	354.8339
<b>Total</b>	<b>0.1255</b>	<b>0.5257</b>	<b>1.3413</b>	<b>5.9200e-003</b>	<b>0.5460</b>	<b>4.6300e-003</b>	<b>0.5506</b>	<b>0.1468</b>	<b>4.3500e-003</b>	<b>0.1511</b>	<b>0.0000</b>	<b>568.3355</b>	<b>568.3355</b>	<b>0.0207</b>	<b>0.0392</b>	<b>580.5370</b>

The Ritz-Carlton Residences - Orange County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.5 Building Construction - 2025**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1885	1.5210	1.7719	3.1700e-003		0.0595	0.0595		0.0569	0.0569	0.0000	262.7852	262.7852	0.0482	0.0000	263.9900
<b>Total</b>	<b>0.1885</b>	<b>1.5210</b>	<b>1.7719</b>	<b>3.1700e-003</b>		<b>0.0595</b>	<b>0.0595</b>		<b>0.0569</b>	<b>0.0569</b>	<b>0.0000</b>	<b>262.7852</b>	<b>262.7852</b>	<b>0.0482</b>	<b>0.0000</b>	<b>263.9900</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	9.4900e-003	0.3594	0.1438	1.7100e-003	0.0622	1.8700e-003	0.0640	0.0179	1.7900e-003	0.0197	0.0000	170.8523	170.8523	0.0107	0.0247	178.4933
Worker	0.0865	0.0565	0.8813	2.9300e-003	0.3777	1.7900e-003	0.3795	0.1003	1.6500e-003	0.1020	0.0000	276.8971	276.8971	5.5200e-003	6.1000e-003	278.8524
<b>Total</b>	<b>0.0960</b>	<b>0.4159</b>	<b>1.0250</b>	<b>4.6400e-003</b>	<b>0.4399</b>	<b>3.6600e-003</b>	<b>0.4436</b>	<b>0.1182</b>	<b>3.4400e-003</b>	<b>0.1217</b>	<b>0.0000</b>	<b>447.7493</b>	<b>447.7493</b>	<b>0.0163</b>	<b>0.0308</b>	<b>457.3457</b>

The Ritz-Carlton Residences - Orange County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.5 Building Construction - 2025**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1198	2.5359	1.9491	3.1700e-003		0.1035	0.1035		0.1035	0.1035	0.0000	262.7849	262.7849	0.0482	0.0000	263.9897
<b>Total</b>	<b>0.1198</b>	<b>2.5359</b>	<b>1.9491</b>	<b>3.1700e-003</b>		<b>0.1035</b>	<b>0.1035</b>		<b>0.1035</b>	<b>0.1035</b>	<b>0.0000</b>	<b>262.7849</b>	<b>262.7849</b>	<b>0.0482</b>	<b>0.0000</b>	<b>263.9897</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	9.4900e-003	0.3594	0.1438	1.7100e-003	0.0622	1.8700e-003	0.0640	0.0179	1.7900e-003	0.0197	0.0000	170.8523	170.8523	0.0107	0.0247	178.4933
Worker	0.0865	0.0565	0.8813	2.9300e-003	0.3777	1.7900e-003	0.3795	0.1003	1.6500e-003	0.1020	0.0000	276.8971	276.8971	5.5200e-003	6.1000e-003	278.8524
<b>Total</b>	<b>0.0960</b>	<b>0.4159</b>	<b>1.0250</b>	<b>4.6400e-003</b>	<b>0.4399</b>	<b>3.6600e-003</b>	<b>0.4436</b>	<b>0.1182</b>	<b>3.4400e-003</b>	<b>0.1217</b>	<b>0.0000</b>	<b>447.7493</b>	<b>447.7493</b>	<b>0.0163</b>	<b>0.0308</b>	<b>457.3457</b>

The Ritz-Carlton Residences - Orange County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.6 Paving - 2025**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0157	0.1487	0.2335	3.6000e-004		7.0000e-003	7.0000e-003		6.4700e-003	6.4700e-003	0.0000	31.0258	31.0258	9.8300e-003	0.0000	31.2717
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0157</b>	<b>0.1487</b>	<b>0.2335</b>	<b>3.6000e-004</b>		<b>7.0000e-003</b>	<b>7.0000e-003</b>		<b>6.4700e-003</b>	<b>6.4700e-003</b>	<b>0.0000</b>	<b>31.0258</b>	<b>31.0258</b>	<b>9.8300e-003</b>	<b>0.0000</b>	<b>31.2717</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.5000e-004	4.9000e-004	7.6800e-003	3.0000e-005	3.2900e-003	2.0000e-005	3.3100e-003	8.7000e-004	1.0000e-005	8.9000e-004	0.0000	2.4142	2.4142	5.0000e-005	5.0000e-005	2.4313
<b>Total</b>	<b>7.5000e-004</b>	<b>4.9000e-004</b>	<b>7.6800e-003</b>	<b>3.0000e-005</b>	<b>3.2900e-003</b>	<b>2.0000e-005</b>	<b>3.3100e-003</b>	<b>8.7000e-004</b>	<b>1.0000e-005</b>	<b>8.9000e-004</b>	<b>0.0000</b>	<b>2.4142</b>	<b>2.4142</b>	<b>5.0000e-005</b>	<b>5.0000e-005</b>	<b>2.4313</b>

The Ritz-Carlton Residences - Orange County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.6 Paving - 2025**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0147	0.3122	0.2595	3.6000e-004		0.0112	0.0112		0.0112	0.0112	0.0000	31.0258	31.0258	9.8300e-003	0.0000	31.2716
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0147</b>	<b>0.3122</b>	<b>0.2595</b>	<b>3.6000e-004</b>		<b>0.0112</b>	<b>0.0112</b>		<b>0.0112</b>	<b>0.0112</b>	<b>0.0000</b>	<b>31.0258</b>	<b>31.0258</b>	<b>9.8300e-003</b>	<b>0.0000</b>	<b>31.2716</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.5000e-004	4.9000e-004	7.6800e-003	3.0000e-005	3.2900e-003	2.0000e-005	3.3100e-003	8.7000e-004	1.0000e-005	8.9000e-004	0.0000	2.4142	2.4142	5.0000e-005	5.0000e-005	2.4313
<b>Total</b>	<b>7.5000e-004</b>	<b>4.9000e-004</b>	<b>7.6800e-003</b>	<b>3.0000e-005</b>	<b>3.2900e-003</b>	<b>2.0000e-005</b>	<b>3.3100e-003</b>	<b>8.7000e-004</b>	<b>1.0000e-005</b>	<b>8.9000e-004</b>	<b>0.0000</b>	<b>2.4142</b>	<b>2.4142</b>	<b>5.0000e-005</b>	<b>5.0000e-005</b>	<b>2.4313</b>

The Ritz-Carlton Residences - Orange County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.7 Architectural Coating - 2024**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1253					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.8900e-003	0.0195	0.0290	5.0000e-005		9.7000e-004	9.7000e-004		9.7000e-004	9.7000e-004	0.0000	4.0852	4.0852	2.3000e-004	0.0000	4.0910
<b>Total</b>	<b>0.1281</b>	<b>0.0195</b>	<b>0.0290</b>	<b>5.0000e-005</b>		<b>9.7000e-004</b>	<b>9.7000e-004</b>		<b>9.7000e-004</b>	<b>9.7000e-004</b>	<b>0.0000</b>	<b>4.0852</b>	<b>4.0852</b>	<b>2.3000e-004</b>	<b>0.0000</b>	<b>4.0910</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.3000e-003	1.5700e-003	0.0235	8.0000e-005	9.4800e-003	5.0000e-005	9.5300e-003	2.5200e-003	4.0000e-005	2.5600e-003	0.0000	7.1268	7.1268	1.5000e-004	1.6000e-004	7.1791
<b>Total</b>	<b>2.3000e-003</b>	<b>1.5700e-003</b>	<b>0.0235</b>	<b>8.0000e-005</b>	<b>9.4800e-003</b>	<b>5.0000e-005</b>	<b>9.5300e-003</b>	<b>2.5200e-003</b>	<b>4.0000e-005</b>	<b>2.5600e-003</b>	<b>0.0000</b>	<b>7.1268</b>	<b>7.1268</b>	<b>1.5000e-004</b>	<b>1.6000e-004</b>	<b>7.1791</b>

The Ritz-Carlton Residences - Orange County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.7 Architectural Coating - 2024**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1253					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8200e-003	0.0376	0.0293	5.0000e-005		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003	0.0000	4.0852	4.0852	2.3000e-004	0.0000	4.0910
<b>Total</b>	<b>0.1271</b>	<b>0.0376</b>	<b>0.0293</b>	<b>5.0000e-005</b>		<b>1.5200e-003</b>	<b>1.5200e-003</b>		<b>1.5200e-003</b>	<b>1.5200e-003</b>	<b>0.0000</b>	<b>4.0852</b>	<b>4.0852</b>	<b>2.3000e-004</b>	<b>0.0000</b>	<b>4.0910</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.3000e-003	1.5700e-003	0.0235	8.0000e-005	9.4800e-003	5.0000e-005	9.5300e-003	2.5200e-003	4.0000e-005	2.5600e-003	0.0000	7.1268	7.1268	1.5000e-004	1.6000e-004	7.1791
<b>Total</b>	<b>2.3000e-003</b>	<b>1.5700e-003</b>	<b>0.0235</b>	<b>8.0000e-005</b>	<b>9.4800e-003</b>	<b>5.0000e-005</b>	<b>9.5300e-003</b>	<b>2.5200e-003</b>	<b>4.0000e-005</b>	<b>2.5600e-003</b>	<b>0.0000</b>	<b>7.1268</b>	<b>7.1268</b>	<b>1.5000e-004</b>	<b>1.6000e-004</b>	<b>7.1791</b>

The Ritz-Carlton Residences - Orange County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.7 Architectural Coating - 2025**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.2252					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0267	0.1793	0.2831	4.7000e-004		8.0600e-003	8.0600e-003		8.0600e-003	8.0600e-003	0.0000	39.9584	39.9584	2.1800e-003	0.0000	40.0129
<b>Total</b>	<b>1.2519</b>	<b>0.1793</b>	<b>0.2831</b>	<b>4.7000e-004</b>		<b>8.0600e-003</b>	<b>8.0600e-003</b>		<b>8.0600e-003</b>	<b>8.0600e-003</b>	<b>0.0000</b>	<b>39.9584</b>	<b>39.9584</b>	<b>2.1800e-003</b>	<b>0.0000</b>	<b>40.0129</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0213	0.0139	0.2164	7.2000e-004	0.0928	4.4000e-004	0.0932	0.0246	4.1000e-004	0.0250	0.0000	68.0091	68.0091	1.3600e-003	1.5000e-003	68.4894
<b>Total</b>	<b>0.0213</b>	<b>0.0139</b>	<b>0.2164</b>	<b>7.2000e-004</b>	<b>0.0928</b>	<b>4.4000e-004</b>	<b>0.0932</b>	<b>0.0246</b>	<b>4.1000e-004</b>	<b>0.0250</b>	<b>0.0000</b>	<b>68.0091</b>	<b>68.0091</b>	<b>1.3600e-003</b>	<b>1.5000e-003</b>	<b>68.4894</b>



The Ritz-Carlton Residences - Orange County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.7 Architectural Coating - 2025**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.2252					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0178	0.3682	0.2868	4.7000e-004		0.0149	0.0149		0.0149	0.0149	0.0000	39.9584	39.9584	2.1800e-003	0.0000	40.0129
<b>Total</b>	<b>1.2430</b>	<b>0.3682</b>	<b>0.2868</b>	<b>4.7000e-004</b>		<b>0.0149</b>	<b>0.0149</b>		<b>0.0149</b>	<b>0.0149</b>	<b>0.0000</b>	<b>39.9584</b>	<b>39.9584</b>	<b>2.1800e-003</b>	<b>0.0000</b>	<b>40.0129</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0213	0.0139	0.2164	7.2000e-004	0.0928	4.4000e-004	0.0932	0.0246	4.1000e-004	0.0250	0.0000	68.0091	68.0091	1.3600e-003	1.5000e-003	68.4894
<b>Total</b>	<b>0.0213</b>	<b>0.0139</b>	<b>0.2164</b>	<b>7.2000e-004</b>	<b>0.0928</b>	<b>4.4000e-004</b>	<b>0.0932</b>	<b>0.0246</b>	<b>4.1000e-004</b>	<b>0.0250</b>	<b>0.0000</b>	<b>68.0091</b>	<b>68.0091</b>	<b>1.3600e-003</b>	<b>1.5000e-003</b>	<b>68.4894</b>

The Ritz-Carlton Residences - Orange County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**4.0 Operational Detail - Mobile**

**4.1 Mitigation Measures Mobile**

Increase Density

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.2786	0.2792	2.5798	5.6200e-003	0.6375	3.9800e-003	0.6414	0.1702	3.7000e-003	0.1739	0.0000	532.9663	532.9663	0.0353	0.0236	540.8790
Unmitigated	0.3360	0.3744	3.4690	8.1200e-003	0.9292	5.5800e-003	0.9348	0.2480	5.1900e-003	0.2532	0.0000	769.6589	769.6589	0.0457	0.0315	780.1911

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments High Rise	721.86	721.86	721.86	2,466,705	1,692,160
Enclosed Parking with Elevator	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
<b>Total</b>	<b>721.86</b>	<b>721.86</b>	<b>721.86</b>	<b>2,466,705</b>	<b>1,692,160</b>

**4.3 Trip Type Information**

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments High Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

The Ritz-Carlton Residences - Orange County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments High Rise	0.547453	0.060181	0.185039	0.126487	0.024236	0.006679	0.014707	0.004926	0.000662	0.000378	0.024745	0.000705	0.003801
Enclosed Parking with Elevator	0.547453	0.060181	0.185039	0.126487	0.024236	0.006679	0.014707	0.004926	0.000662	0.000378	0.024745	0.000705	0.003801
Other Non-Asphalt Surfaces	0.547453	0.060181	0.185039	0.126487	0.024236	0.006679	0.014707	0.004926	0.000662	0.000378	0.024745	0.000705	0.003801

**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	419.9165	419.9165	0.0354	4.3000e-003	422.0828
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	419.9165	419.9165	0.0354	4.3000e-003	422.0828
NaturalGas Mitigated	9.5600e-003	0.0817	0.0348	5.2000e-004		6.6000e-003	6.6000e-003		6.6000e-003	6.6000e-003	0.0000	94.6028	94.6028	1.8100e-003	1.7300e-003	95.1650
NaturalGas Unmitigated	9.5600e-003	0.0817	0.0348	5.2000e-004		6.6000e-003	6.6000e-003		6.6000e-003	6.6000e-003	0.0000	94.6028	94.6028	1.8100e-003	1.7300e-003	95.1650

The Ritz-Carlton Residences - Orange County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**5.2 Energy by Land Use - Natural Gas**

**Unmitigated**

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments High Rise	1.77279e+006	9.5600e-003	0.0817	0.0348	5.2000e-004		6.6000e-003	6.6000e-003		6.6000e-003	6.6000e-003	0.0000	94.6028	94.6028	1.8100e-003	1.7300e-003	95.1650
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>9.5600e-003</b>	<b>0.0817</b>	<b>0.0348</b>	<b>5.2000e-004</b>		<b>6.6000e-003</b>	<b>6.6000e-003</b>		<b>6.6000e-003</b>	<b>6.6000e-003</b>	<b>0.0000</b>	<b>94.6028</b>	<b>94.6028</b>	<b>1.8100e-003</b>	<b>1.7300e-003</b>	<b>95.1650</b>

The Ritz-Carlton Residences - Orange County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**5.2 Energy by Land Use - Natural Gas**

**Mitigated**

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments High Rise	1.77279e+006	9.5600e-003	0.0817	0.0348	5.2000e-004		6.6000e-003	6.6000e-003		6.6000e-003	6.6000e-003	0.0000	94.6028	94.6028	1.8100e-003	1.7300e-003	95.1650
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>9.5600e-003</b>	<b>0.0817</b>	<b>0.0348</b>	<b>5.2000e-004</b>		<b>6.6000e-003</b>	<b>6.6000e-003</b>		<b>6.6000e-003</b>	<b>6.6000e-003</b>	<b>0.0000</b>	<b>94.6028</b>	<b>94.6028</b>	<b>1.8100e-003</b>	<b>1.7300e-003</b>	<b>95.1650</b>

The Ritz-Carlton Residences - Orange County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**5.3 Energy by Land Use - Electricity**

**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments High Rise	609579	108.1061	9.1200e-003	1.1100e-003	108.6638
Enclosed Parking with Elevator	1.75821e+006	311.8104	0.0263	3.1900e-003	313.4189
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>419.9165</b>	<b>0.0354</b>	<b>4.3000e-003</b>	<b>422.0828</b>

The Ritz-Carlton Residences - Orange County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**5.3 Energy by Land Use - Electricity**

**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments High Rise	609579	108.1061	9.1200e-003	1.1100e-003	108.6638
Enclosed Parking with Elevator	1.75821e+006	311.8104	0.0263	3.1900e-003	313.4189
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>419.9165</b>	<b>0.0354</b>	<b>4.3000e-003</b>	<b>422.0828</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

Use only Natural Gas Hearths

The Ritz-Carlton Residences - Orange County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.7124	0.0486	1.6611	2.8000e-004		0.0115	0.0115		0.0115	0.0115	0.0000	37.0622	37.0622	3.2800e-003	6.3000e-004	37.3318
Unmitigated	2.2298	0.0602	2.6592	2.6700e-003		0.1610	0.1610		0.1610	0.1610	16.8888	35.1531	52.0419	0.0530	1.1500e-003	53.7081

**6.2 Area by SubCategory**

**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1350					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.5238					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.5208	0.0412	1.0108	2.5800e-003		0.1518	0.1518		0.1518	0.1518	16.8888	32.4545	49.3434	0.0504	1.1500e-003	50.9441
Landscaping	0.0501	0.0190	1.6485	9.0000e-005		9.1300e-003	9.1300e-003		9.1300e-003	9.1300e-003	0.0000	2.6985	2.6985	2.6200e-003	0.0000	2.7640
<b>Total</b>	<b>2.2298</b>	<b>0.0602</b>	<b>2.6592</b>	<b>2.6700e-003</b>		<b>0.1610</b>	<b>0.1610</b>		<b>0.1610</b>	<b>0.1610</b>	<b>16.8888</b>	<b>35.1531</b>	<b>52.0419</b>	<b>0.0530</b>	<b>1.1500e-003</b>	<b>53.7081</b>



The Ritz-Carlton Residences - Orange County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1350					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.5238					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	3.4700e-003	0.0297	0.0126	1.9000e-004		2.4000e-003	2.4000e-003		2.4000e-003	2.4000e-003	0.0000	34.3636	34.3636	6.6000e-004	6.3000e-004	34.5678
Landscaping	0.0501	0.0190	1.6485	9.0000e-005		9.1300e-003	9.1300e-003		9.1300e-003	9.1300e-003	0.0000	2.6985	2.6985	2.6200e-003	0.0000	2.7640
<b>Total</b>	<b>1.7124</b>	<b>0.0486</b>	<b>1.6611</b>	<b>2.8000e-004</b>		<b>0.0115</b>	<b>0.0115</b>		<b>0.0115</b>	<b>0.0115</b>	<b>0.0000</b>	<b>37.0621</b>	<b>37.0621</b>	<b>3.2800e-003</b>	<b>6.3000e-004</b>	<b>37.3318</b>

**7.0 Water Detail**

**7.1 Mitigation Measures Water**

Use Water Efficient Irrigation System

The Ritz-Carlton Residences - Orange County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	39.2920	0.3406	8.3400e-003	50.2921
Unmitigated	40.0770	0.3407	8.3500e-003	51.0811

**7.2 Water by Land Use**

**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments High Rise	10.3595 / 6.53098	40.0770	0.3407	8.3500e-003	51.0811
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>40.0770</b>	<b>0.3407</b>	<b>8.3500e-003</b>	<b>51.0811</b>

The Ritz-Carlton Residences - Orange County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**7.2 Water by Land Use**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments High Rise	10.3595 / 6.13259	39.2920	0.3406	8.3400e-003	50.2921
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>39.2920</b>	<b>0.3406</b>	<b>8.3400e-003</b>	<b>50.2921</b>

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

The Ritz-Carlton Residences - Orange County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	14.8468	0.8774	0.0000	36.7822
Unmitigated	14.8468	0.8774	0.0000	36.7822

**8.2 Waste by Land Use**

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments High Rise	73.14	14.8468	0.8774	0.0000	36.7822
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>14.8468</b>	<b>0.8774</b>	<b>0.0000</b>	<b>36.7822</b>

The Ritz-Carlton Residences - Orange County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**8.2 Waste by Land Use**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments High Rise	73.14	14.8468	0.8774	0.0000	36.7822
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>14.8468</b>	<b>0.8774</b>	<b>0.0000</b>	<b>36.7822</b>

**9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	1	0.13	50	350	0.73	Diesel

**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

The Ritz-Carlton Residences - Orange County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

Equipment Type	Number
----------------	--------

**10.1 Stationary Sources**

**Unmitigated/Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Emergency Generator - Diesel (300 - 600 HP)	0.0144	0.0401	0.0366	7.0000e-005		2.1100e-003	2.1100e-003		2.1100e-003	2.1100e-003	0.0000	6.6640	6.6640	9.3000e-004	0.0000	6.6873
<b>Total</b>	<b>0.0144</b>	<b>0.0401</b>	<b>0.0366</b>	<b>7.0000e-005</b>		<b>2.1100e-003</b>	<b>2.1100e-003</b>		<b>2.1100e-003</b>	<b>2.1100e-003</b>	<b>0.0000</b>	<b>6.6640</b>	<b>6.6640</b>	<b>9.3000e-004</b>	<b>0.0000</b>	<b>6.6873</b>

**11.0 Vegetation**

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The Ritz-Carlton Residences - Orange County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**The Ritz-Carlton Residences  
Orange County, Summer**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	808.00	Space	1.03	323,200.00	0
Other Non-Asphalt Surfaces	1.17	Acre	1.17	50,965.20	0
Apartments High Rise	159.00	Dwelling Unit	0.57	414,999.00	360

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	30
<b>Climate Zone</b>	8	<b>Operational Year</b>	2025		
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MW hr)</b>	390.98	<b>CH4 Intensity (lb/MW hr)</b>	0.033	<b>N2O Intensity (lb/MW hr)</b>	0.004

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics -

Land Use - Based on the Project Description provided to LSA on January 21, 2022. Other non-asphalt surfaces includes the vehicle entry, pedestrian walk, landscaping, and pool deck.

Construction Phase - 6 months of demolition then construction start 12/31/22, 36 month duration, complete 12/31/25.

Demolition - The project would demolish approximately 263,194 square feet.

Grading - The project would require the export of 205,700 cubic yards of soil.

Vehicle Trips - Trip rates based on the average daily trip generation provided in the project's Trip Generation letter dated January 26, 2022.

Woodstoves - Assuming no woodstoves or wood-burning hearths.

Construction Off-road Equipment Mitigation - Assuming use of Tier 2 construction equipment and compliance with SCAQMD Rule 403: Fugitive Dust measures.

Mobile Land Use Mitigation -





The Ritz-Carlton Residences - Orange County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstructionPhase	NumDays	20.00	180.00
tblConstructionPhase	NumDays	3.00	10.00
tblConstructionPhase	NumDays	6.00	100.00
tblConstructionPhase	NumDays	220.00	770.00
tblConstructionPhase	NumDays	10.00	345.00
tblConstructionPhase	NumDays	10.00	40.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	PhaseEndDate	6/28/2022	12/30/2022
tblConstructionPhase	PhaseEndDate	7/1/2022	1/11/2023
tblConstructionPhase	PhaseEndDate	7/11/2022	5/8/2023
tblConstructionPhase	PhaseEndDate	5/15/2023	10/22/2025
tblConstructionPhase	PhaseEndDate	6/12/2023	12/31/2025
tblConstructionPhase	PhaseEndDate	5/29/2023	12/8/2025
tblConstructionPhase	PhaseStartDate	6/1/2022	6/4/2022
tblConstructionPhase	PhaseStartDate	6/29/2022	12/31/2022
tblConstructionPhase	PhaseStartDate	7/2/2022	1/12/2023
tblConstructionPhase	PhaseStartDate	7/12/2022	5/9/2023
tblConstructionPhase	PhaseStartDate	5/30/2023	11/25/2024

The Ritz-Carlton Residences - Orange County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

tblConstructionPhase	PhaseStartDate	5/16/2023	10/23/2025
tblGrading	MaterialExported	0.00	205,700.00
tblLandUse	LandUseSquareFeet	159,000.00	414,999.00
tblLandUse	LotAcreage	7.27	1.03
tblLandUse	LotAcreage	2.56	0.57
tblLandUse	Population	455.00	360.00
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	350.00
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	0.13
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
tblVehicleTrips	ST_TR	4.53	4.54
tblVehicleTrips	SU_TR	3.59	4.54
tblVehicleTrips	WD_TR	4.45	4.54

**2.0 Emissions Summary**

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The Ritz-Carlton Residences - Orange County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**2.1 Overall Construction (Maximum Daily Emission)**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	1.7550	17.6834	14.6791	0.0294	1.7006	0.8465	2.5471	0.2882	0.7911	1.0793	0.0000	2,901.861 3	2,901.861 3	0.7700	0.0749	2,940.126 5
2023	2.5588	45.1286	23.6766	0.1658	11.9113	0.8022	12.7135	4.7176	0.7453	5.4629	0.0000	18,536.90 96	18,536.90 96	2.3068	2.6400	19,381.30 12
2024	10.5475	17.2958	26.3395	0.0716	4.1427	0.6314	4.7740	1.1099	0.6065	1.7165	0.0000	7,158.523 0	7,158.523 0	0.5968	0.2813	7,257.261 5
2025	10.3810	16.3595	25.6890	0.0703	4.1426	0.5532	4.6959	1.1099	0.5311	1.6410	0.0000	7,055.272 6	7,055.272 6	0.5853	0.2744	7,151.666 7
<b>Maximum</b>	<b>10.5475</b>	<b>45.1286</b>	<b>26.3395</b>	<b>0.1658</b>	<b>11.9113</b>	<b>0.8465</b>	<b>12.7135</b>	<b>4.7176</b>	<b>0.7911</b>	<b>5.4629</b>	<b>0.0000</b>	<b>18,536.90 96</b>	<b>18,536.90 96</b>	<b>2.3068</b>	<b>2.6400</b>	<b>19,381.30 12</b>



The Ritz-Carlton Residences - Orange County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	51.1543	3.4507	94.0474	0.2070		12.2188	12.2188		12.2188	12.2188	1,489.340 0	2,885.796 9	4,375.136 9	4.4646	0.1011	4,516.875 0
Energy	0.0524	0.4476	0.1905	2.8600e-003		0.0362	0.0362		0.0362	0.0362		571.4068	571.4068	0.0110	0.0105	574.8024
Mobile	1.8993	1.8893	19.1441	0.0460	5.1977	0.0307	5.2284	1.3854	0.0286	1.4140		4,800.454 4	4,800.454 4	0.2701	0.1824	4,861.550 3
Stationary	0.0747	0.2087	0.1904	3.6000e-004		0.0110	0.0110		0.0110	0.0110		38.1979	38.1979	5.3600e-003		38.3318
<b>Total</b>	<b>53.1806</b>	<b>5.9963</b>	<b>113.5724</b>	<b>0.2562</b>	<b>5.1977</b>	<b>12.2966</b>	<b>17.4943</b>	<b>1.3854</b>	<b>12.2945</b>	<b>13.6799</b>	<b>1,489.340 0</b>	<b>8,295.855 9</b>	<b>9,785.196 0</b>	<b>4.7510</b>	<b>0.2939</b>	<b>9,991.559 5</b>

The Ritz-Carlton Residences - Orange County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**2.2 Overall Operational**

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	9.7683	2.5255	14.1978	0.0159		0.2649	0.2649		0.2649	0.2649	0.0000	3,054.1499	3,054.1499	0.0812	0.0556	3,072.7347
Energy	0.0524	0.4476	0.1905	2.8600e-003		0.0362	0.0362		0.0362	0.0362		571.4068	571.4068	0.0110	0.0105	574.8024
Mobile	1.5881	1.4126	14.0928	0.0318	3.5656	0.0219	3.5875	0.9504	0.0204	0.9708		3,323.0200	3,323.0200	0.2070	0.1366	3,368.9084
Stationary	0.0747	0.2087	0.1904	3.6000e-004		0.0110	0.0110		0.0110	0.0110		38.1979	38.1979	5.3600e-003		38.3318
<b>Total</b>	<b>11.4834</b>	<b>4.5944</b>	<b>28.6714</b>	<b>0.0509</b>	<b>3.5656</b>	<b>0.3340</b>	<b>3.8996</b>	<b>0.9504</b>	<b>0.3325</b>	<b>1.2829</b>	<b>0.0000</b>	<b>6,986.7745</b>	<b>6,986.7745</b>	<b>0.3044</b>	<b>0.2027</b>	<b>7,054.7772</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>78.41</b>	<b>23.38</b>	<b>74.75</b>	<b>80.13</b>	<b>31.40</b>	<b>97.28</b>	<b>77.71</b>	<b>31.40</b>	<b>97.30</b>	<b>90.62</b>	<b>100.00</b>	<b>15.78</b>	<b>28.60</b>	<b>93.59</b>	<b>31.05</b>	<b>29.39</b>

**3.0 Construction Detail**

**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/4/2022	12/30/2022	6	180	
2	Site Preparation	Site Preparation	12/31/2022	1/11/2023	6	10	
3	Grading	Grading	1/12/2023	5/8/2023	6	100	
4	Building Construction	Building Construction	5/9/2023	10/22/2025	6	770	

The Ritz-Carlton Residences - Orange County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

5	Paving	Paving	10/23/2025	12/8/2025	6	40
6	Architectural Coating	Architectural Coating	11/25/2024	12/31/2025	6	345

**Acres of Grading (Site Preparation Phase): 15**

**Acres of Grading (Grading Phase): 100**

**Acres of Paving: 2.2**

**Residential Indoor: 840,373; Residential Outdoor: 280,124; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 22,450 (Architectural Coating – sqft)**

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Scrapers	1	8.00	367	0.48
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36

The Ritz-Carlton Residences - Orange County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	1,197.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	25,713.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	272.00	78.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	54.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads



The Ritz-Carlton Residences - Orange County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.2 Demolition - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.4393	0.0000	1.4393	0.2179	0.0000	0.2179			0.0000			0.0000
Off-Road	1.6889	16.6217	13.9605	0.0241		0.8379	0.8379		0.7829	0.7829		2,323.4168	2,323.4168	0.5921		2,338.2191
<b>Total</b>	<b>1.6889</b>	<b>16.6217</b>	<b>13.9605</b>	<b>0.0241</b>	<b>1.4393</b>	<b>0.8379</b>	<b>2.2772</b>	<b>0.2179</b>	<b>0.7829</b>	<b>1.0008</b>		<b>2,323.4168</b>	<b>2,323.4168</b>	<b>0.5921</b>		<b>2,338.2191</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0269	1.0354	0.2908	3.9700e-003	0.1160	7.8300e-003	0.1238	0.0318	7.4900e-003	0.0393		449.6041	449.6041	0.0429	0.0720	472.1346
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0391	0.0263	0.4278	1.2700e-003	0.1453	7.8000e-004	0.1461	0.0385	7.2000e-004	0.0393		128.8404	128.8404	3.0100e-003	2.8800e-003	129.7729
<b>Total</b>	<b>0.0661</b>	<b>1.0616</b>	<b>0.7187</b>	<b>5.2400e-003</b>	<b>0.2613</b>	<b>8.6100e-003</b>	<b>0.2699</b>	<b>0.0703</b>	<b>8.2100e-003</b>	<b>0.0785</b>		<b>578.4445</b>	<b>578.4445</b>	<b>0.0459</b>	<b>0.0749</b>	<b>601.9075</b>

The Ritz-Carlton Residences - Orange County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.2 Demolition - 2022**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6477	0.0000	0.6477	0.0981	0.0000	0.0981			0.0000			0.0000
Off-Road	0.8857	21.2053	15.4154	0.0241		0.7182	0.7182		0.7182	0.7182	0.0000	2,323.4168	2,323.4168	0.5921		2,338.2191
<b>Total</b>	<b>0.8857</b>	<b>21.2053</b>	<b>15.4154</b>	<b>0.0241</b>	<b>0.6477</b>	<b>0.7182</b>	<b>1.3659</b>	<b>0.0981</b>	<b>0.7182</b>	<b>0.8163</b>	<b>0.0000</b>	<b>2,323.4168</b>	<b>2,323.4168</b>	<b>0.5921</b>		<b>2,338.2191</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0269	1.0354	0.2908	3.9700e-003	0.1160	7.8300e-003	0.1238	0.0318	7.4900e-003	0.0393		449.6041	449.6041	0.0429	0.0720	472.1346
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0391	0.0263	0.4278	1.2700e-003	0.1453	7.8000e-004	0.1461	0.0385	7.2000e-004	0.0393		128.8404	128.8404	3.0100e-003	2.8800e-003	129.7729
<b>Total</b>	<b>0.0661</b>	<b>1.0616</b>	<b>0.7187</b>	<b>5.2400e-003</b>	<b>0.2613</b>	<b>8.6100e-003</b>	<b>0.2699</b>	<b>0.0703</b>	<b>8.2100e-003</b>	<b>0.0785</b>		<b>578.4445</b>	<b>578.4445</b>	<b>0.0459</b>	<b>0.0749</b>	<b>601.9075</b>

The Ritz-Carlton Residences - Orange County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.3 Site Preparation - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5908	0.0000	1.5908	0.1718	0.0000	0.1718			0.0000			0.0000
Off-Road	1.3784	15.6673	10.0558	0.0245		0.5952	0.5952		0.5476	0.5476		2,375.1569	2,375.1569	0.7682		2,394.3613
<b>Total</b>	<b>1.3784</b>	<b>15.6673</b>	<b>10.0558</b>	<b>0.0245</b>	<b>1.5908</b>	<b>0.5952</b>	<b>2.1859</b>	<b>0.1718</b>	<b>0.5476</b>	<b>0.7193</b>		<b>2,375.1569</b>	<b>2,375.1569</b>	<b>0.7682</b>		<b>2,394.3613</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0241	0.0162	0.2633	7.8000e-004	0.0894	4.8000e-004	0.0899	0.0237	4.4000e-004	0.0242		79.2864	79.2864	1.8500e-003	1.7700e-003	79.8603
<b>Total</b>	<b>0.0241</b>	<b>0.0162</b>	<b>0.2633</b>	<b>7.8000e-004</b>	<b>0.0894</b>	<b>4.8000e-004</b>	<b>0.0899</b>	<b>0.0237</b>	<b>4.4000e-004</b>	<b>0.0242</b>		<b>79.2864</b>	<b>79.2864</b>	<b>1.8500e-003</b>	<b>1.7700e-003</b>	<b>79.8603</b>

The Ritz-Carlton Residences - Orange County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.3 Site Preparation - 2022**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7158	0.0000	0.7158	0.0773	0.0000	0.0773			0.0000			0.0000
Off-Road	0.6625	20.0179	13.6431	0.0245		0.4988	0.4988		0.4988	0.4988	0.0000	2,375.1569	2,375.1569	0.7682		2,394.3613
<b>Total</b>	<b>0.6625</b>	<b>20.0179</b>	<b>13.6431</b>	<b>0.0245</b>	<b>0.7158</b>	<b>0.4988</b>	<b>1.2146</b>	<b>0.0773</b>	<b>0.4988</b>	<b>0.5760</b>	<b>0.0000</b>	<b>2,375.1569</b>	<b>2,375.1569</b>	<b>0.7682</b>		<b>2,394.3613</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0241	0.0162	0.2633	7.8000e-004	0.0894	4.8000e-004	0.0899	0.0237	4.4000e-004	0.0242		79.2864	79.2864	1.8500e-003	1.7700e-003	79.8603
<b>Total</b>	<b>0.0241</b>	<b>0.0162</b>	<b>0.2633</b>	<b>7.8000e-004</b>	<b>0.0894</b>	<b>4.8000e-004</b>	<b>0.0899</b>	<b>0.0237</b>	<b>4.4000e-004</b>	<b>0.0242</b>		<b>79.2864</b>	<b>79.2864</b>	<b>1.8500e-003</b>	<b>1.7700e-003</b>	<b>79.8603</b>

The Ritz-Carlton Residences - Orange County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.3 Site Preparation - 2023**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5908	0.0000	1.5908	0.1718	0.0000	0.1718			0.0000			0.0000
Off-Road	1.3027	14.2802	9.7820	0.0245		0.5419	0.5419		0.4985	0.4985		2,374.863 4	2,374.863 4	0.7681		2,394.065 4
<b>Total</b>	<b>1.3027</b>	<b>14.2802</b>	<b>9.7820</b>	<b>0.0245</b>	<b>1.5908</b>	<b>0.5419</b>	<b>2.1326</b>	<b>0.1718</b>	<b>0.4985</b>	<b>0.6703</b>		<b>2,374.863 4</b>	<b>2,374.863 4</b>	<b>0.7681</b>		<b>2,394.065 4</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0225	0.0144	0.2450	7.5000e-004	0.0894	4.6000e-004	0.0899	0.0237	4.2000e-004	0.0241		77.2248	77.2248	1.6800e-003	1.6500e-003	77.7578
<b>Total</b>	<b>0.0225</b>	<b>0.0144</b>	<b>0.2450</b>	<b>7.5000e-004</b>	<b>0.0894</b>	<b>4.6000e-004</b>	<b>0.0899</b>	<b>0.0237</b>	<b>4.2000e-004</b>	<b>0.0241</b>		<b>77.2248</b>	<b>77.2248</b>	<b>1.6800e-003</b>	<b>1.6500e-003</b>	<b>77.7578</b>

The Ritz-Carlton Residences - Orange County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.3 Site Preparation - 2023**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7158	0.0000	0.7158	0.0773	0.0000	0.0773			0.0000			0.0000
Off-Road	0.6625	20.0179	13.6431	0.0245		0.4988	0.4988		0.4988	0.4988	0.0000	2,374.863 4	2,374.863 4	0.7681		2,394.065 4
<b>Total</b>	<b>0.6625</b>	<b>20.0179</b>	<b>13.6431</b>	<b>0.0245</b>	<b>0.7158</b>	<b>0.4988</b>	<b>1.2146</b>	<b>0.0773</b>	<b>0.4988</b>	<b>0.5760</b>	<b>0.0000</b>	<b>2,374.863 4</b>	<b>2,374.863 4</b>	<b>0.7681</b>		<b>2,394.065 4</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0225	0.0144	0.2450	7.5000e-004	0.0894	4.6000e-004	0.0899	0.0237	4.2000e-004	0.0241		77.2248	77.2248	1.6800e-003	1.6500e-003	77.7578
<b>Total</b>	<b>0.0225</b>	<b>0.0144</b>	<b>0.2450</b>	<b>7.5000e-004</b>	<b>0.0894</b>	<b>4.6000e-004</b>	<b>0.0899</b>	<b>0.0237</b>	<b>4.2000e-004</b>	<b>0.0241</b>		<b>77.2248</b>	<b>77.2248</b>	<b>1.6800e-003</b>	<b>1.6500e-003</b>	<b>77.7578</b>

The Ritz-Carlton Residences - Orange County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.4 Grading - 2023**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.3152	0.0000	7.3152	3.4600	0.0000	3.4600			0.0000			0.0000
Off-Road	1.3330	14.4676	8.7038	0.0206		0.6044	0.6044		0.5560	0.5560		1,995.6147	1,995.6147	0.6454		2,011.7503
<b>Total</b>	<b>1.3330</b>	<b>14.4676</b>	<b>8.7038</b>	<b>0.0206</b>	<b>7.3152</b>	<b>0.6044</b>	<b>7.9196</b>	<b>3.4600</b>	<b>0.5560</b>	<b>4.0160</b>		<b>1,995.6147</b>	<b>1,995.6147</b>	<b>0.6454</b>		<b>2,011.7503</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.5359	30.6429	10.5043	0.1443	4.4843	0.1973	4.6816	1.2280	0.1887	1.4167		16,444.7638	16,444.7638	1.6593	2.6380	17,272.3537
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0282	0.0180	0.3062	9.4000e-004	0.1118	5.7000e-004	0.1124	0.0296	5.3000e-004	0.0302		96.5311	96.5311	2.1000e-003	2.0600e-003	97.1972
<b>Total</b>	<b>0.5641</b>	<b>30.6609</b>	<b>10.8105</b>	<b>0.1452</b>	<b>4.5961</b>	<b>0.1978</b>	<b>4.7939</b>	<b>1.2576</b>	<b>0.1893</b>	<b>1.4469</b>		<b>16,541.2949</b>	<b>16,541.2949</b>	<b>1.6614</b>	<b>2.6400</b>	<b>17,369.5509</b>

The Ritz-Carlton Residences - Orange County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.4 Grading - 2023**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.2919	0.0000	3.2919	1.5570	0.0000	1.5570			0.0000			0.0000
Off-Road	0.6262	18.1050	12.1450	0.0206		0.4850	0.4850		0.4850	0.4850	0.0000	1,995.6147	1,995.6147	0.6454		2,011.7503
<b>Total</b>	<b>0.6262</b>	<b>18.1050</b>	<b>12.1450</b>	<b>0.0206</b>	<b>3.2919</b>	<b>0.4850</b>	<b>3.7769</b>	<b>1.5570</b>	<b>0.4850</b>	<b>2.0420</b>	<b>0.0000</b>	<b>1,995.6147</b>	<b>1,995.6147</b>	<b>0.6454</b>		<b>2,011.7503</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.5359	30.6429	10.5043	0.1443	4.4843	0.1973	4.6816	1.2280	0.1887	1.4167		16,444.7638	16,444.7638	1.6593	2.6380	17,272.3537
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0282	0.0180	0.3062	9.4000e-004	0.1118	5.7000e-004	0.1124	0.0296	5.3000e-004	0.0302		96.5311	96.5311	2.1000e-003	2.0600e-003	97.1972
<b>Total</b>	<b>0.5641</b>	<b>30.6609</b>	<b>10.8105</b>	<b>0.1452</b>	<b>4.5961</b>	<b>0.1978</b>	<b>4.7939</b>	<b>1.2576</b>	<b>0.1893</b>	<b>1.4469</b>		<b>16,541.2949</b>	<b>16,541.2949</b>	<b>1.6614</b>	<b>2.6400</b>	<b>17,369.5509</b>



The Ritz-Carlton Residences - Orange County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.5 Building Construction - 2023**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7136	13.6239	14.2145	0.0250		0.6136	0.6136		0.5880	0.5880		2,289.523 3	2,289.523 3	0.4330		2,300.347 9
<b>Total</b>	<b>1.7136</b>	<b>13.6239</b>	<b>14.2145</b>	<b>0.0250</b>		<b>0.6136</b>	<b>0.6136</b>		<b>0.5880</b>	<b>0.5880</b>		<b>2,289.523 3</b>	<b>2,289.523 3</b>	<b>0.4330</b>		<b>2,300.347 9</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0788	2.7336	1.1334	0.0140	0.4988	0.0140	0.5128	0.1435	0.0134	0.1570		1,540.105 2	1,540.105 2	0.0916	0.2210	1,608.248 1
Worker	0.7664	0.4903	8.3287	0.0257	3.0403	0.0156	3.0559	0.8063	0.0143	0.8206		2,625.644 7	2,625.644 7	0.0570	0.0560	2,643.763 6
<b>Total</b>	<b>0.8452</b>	<b>3.2239</b>	<b>9.4621</b>	<b>0.0397</b>	<b>3.5391</b>	<b>0.0296</b>	<b>3.5686</b>	<b>0.9499</b>	<b>0.0277</b>	<b>0.9776</b>		<b>4,165.749 9</b>	<b>4,165.749 9</b>	<b>0.1486</b>	<b>0.2770</b>	<b>4,252.011 7</b>

The Ritz-Carlton Residences - Orange County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.5 Building Construction - 2023**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9471	20.0464	15.4081	0.0250		0.8178	0.8178		0.8178	0.8178	0.0000	2,289.523 3	2,289.523 3	0.4330		2,300.347 9
<b>Total</b>	<b>0.9471</b>	<b>20.0464</b>	<b>15.4081</b>	<b>0.0250</b>		<b>0.8178</b>	<b>0.8178</b>		<b>0.8178</b>	<b>0.8178</b>	<b>0.0000</b>	<b>2,289.523 3</b>	<b>2,289.523 3</b>	<b>0.4330</b>		<b>2,300.347 9</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0788	2.7336	1.1334	0.0140	0.4988	0.0140	0.5128	0.1435	0.0134	0.1570		1,540.105 2	1,540.105 2	0.0916	0.2210	1,608.248 1
Worker	0.7664	0.4903	8.3287	0.0257	3.0403	0.0156	3.0559	0.8063	0.0143	0.8206		2,625.644 7	2,625.644 7	0.0570	0.0560	2,643.763 6
<b>Total</b>	<b>0.8452</b>	<b>3.2239</b>	<b>9.4621</b>	<b>0.0397</b>	<b>3.5391</b>	<b>0.0296</b>	<b>3.5686</b>	<b>0.9499</b>	<b>0.0277</b>	<b>0.9776</b>		<b>4,165.749 9</b>	<b>4,165.749 9</b>	<b>0.1486</b>	<b>0.2770</b>	<b>4,252.011 7</b>

The Ritz-Carlton Residences - Orange County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.5 Building Construction - 2024**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5971	12.8235	14.1002	0.0250		0.5381	0.5381		0.5153	0.5153		2,289.654 1	2,289.654 1	0.4265		2,300.315 4
<b>Total</b>	<b>1.5971</b>	<b>12.8235</b>	<b>14.1002</b>	<b>0.0250</b>		<b>0.5381</b>	<b>0.5381</b>		<b>0.5153</b>	<b>0.5153</b>		<b>2,289.654 1</b>	<b>2,289.654 1</b>	<b>0.4265</b>		<b>2,300.315 4</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0776	2.7256	1.1250	0.0138	0.4987	0.0147	0.5134	0.1435	0.0140	0.1576		1,516.213 6	1,516.213 6	0.0925	0.2185	1,583.633 8
Worker	0.7205	0.4406	7.7631	0.0248	3.0403	0.0148	3.0551	0.8063	0.0136	0.8199		2,562.479 6	2,562.479 6	0.0517	0.0524	2,579.384 4
<b>Total</b>	<b>0.7981</b>	<b>3.1661</b>	<b>8.8880</b>	<b>0.0386</b>	<b>3.5391</b>	<b>0.0295</b>	<b>3.5685</b>	<b>0.9499</b>	<b>0.0277</b>	<b>0.9775</b>		<b>4,078.693 3</b>	<b>4,078.693 3</b>	<b>0.1442</b>	<b>0.2709</b>	<b>4,163.018 2</b>

The Ritz-Carlton Residences - Orange County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.5 Building Construction - 2024**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9471	20.0464	15.4081	0.0250		0.8178	0.8178		0.8178	0.8178	0.0000	2,289.654 1	2,289.654 1	0.4265		2,300.315 4
<b>Total</b>	<b>0.9471</b>	<b>20.0464</b>	<b>15.4081</b>	<b>0.0250</b>		<b>0.8178</b>	<b>0.8178</b>		<b>0.8178</b>	<b>0.8178</b>	<b>0.0000</b>	<b>2,289.654 1</b>	<b>2,289.654 1</b>	<b>0.4265</b>		<b>2,300.315 4</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0776	2.7256	1.1250	0.0138	0.4987	0.0147	0.5134	0.1435	0.0140	0.1576		1,516.213 6	1,516.213 6	0.0925	0.2185	1,583.633 8
Worker	0.7205	0.4406	7.7631	0.0248	3.0403	0.0148	3.0551	0.8063	0.0136	0.8199		2,562.479 6	2,562.479 6	0.0517	0.0524	2,579.384 4
<b>Total</b>	<b>0.7981</b>	<b>3.1661</b>	<b>8.8880</b>	<b>0.0386</b>	<b>3.5391</b>	<b>0.0295</b>	<b>3.5685</b>	<b>0.9499</b>	<b>0.0277</b>	<b>0.9775</b>		<b>4,078.693 3</b>	<b>4,078.693 3</b>	<b>0.1442</b>	<b>0.2709</b>	<b>4,163.018 2</b>

The Ritz-Carlton Residences - Orange County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.5 Building Construction - 2025**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4897	12.0233	14.0072	0.0250		0.4700	0.4700		0.4498	0.4498		2,289.8898	2,289.8898	0.4200		2,300.3887
<b>Total</b>	<b>1.4897</b>	<b>12.0233</b>	<b>14.0072</b>	<b>0.0250</b>		<b>0.4700</b>	<b>0.4700</b>		<b>0.4498</b>	<b>0.4498</b>		<b>2,289.8898</b>	<b>2,289.8898</b>	<b>0.4200</b>		<b>2,300.3887</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0765	2.7121	1.1204	0.0135	0.4987	0.0148	0.5135	0.1435	0.0141	0.1577		1,487.8286	1,487.8286	0.0937	0.2153	1,554.3298
Worker	0.6805	0.3993	7.3025	0.0240	3.0403	0.0142	3.0545	0.8063	0.0130	0.8194		2,499.8186	2,499.8186	0.0469	0.0493	2,515.6799
<b>Total</b>	<b>0.7569</b>	<b>3.1114</b>	<b>8.4229</b>	<b>0.0375</b>	<b>3.5391</b>	<b>0.0289</b>	<b>3.5680</b>	<b>0.9498</b>	<b>0.0272</b>	<b>0.9770</b>		<b>3,987.6472</b>	<b>3,987.6472</b>	<b>0.1407</b>	<b>0.2646</b>	<b>4,070.0097</b>

The Ritz-Carlton Residences - Orange County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.5 Building Construction - 2025**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9471	20.0464	15.4081	0.0250		0.8178	0.8178		0.8178	0.8178	0.0000	2,289.8898	2,289.8898	0.4200		2,300.3887
<b>Total</b>	<b>0.9471</b>	<b>20.0464</b>	<b>15.4081</b>	<b>0.0250</b>		<b>0.8178</b>	<b>0.8178</b>		<b>0.8178</b>	<b>0.8178</b>	<b>0.0000</b>	<b>2,289.8898</b>	<b>2,289.8898</b>	<b>0.4200</b>		<b>2,300.3887</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0765	2.7121	1.1204	0.0135	0.4987	0.0148	0.5135	0.1435	0.0141	0.1577		1,487.8286	1,487.8286	0.0937	0.2153	1,554.3298
Worker	0.6805	0.3993	7.3025	0.0240	3.0403	0.0142	3.0545	0.8063	0.0130	0.8194		2,499.8186	2,499.8186	0.0469	0.0493	2,515.6799
<b>Total</b>	<b>0.7569</b>	<b>3.1114</b>	<b>8.4229</b>	<b>0.0375</b>	<b>3.5391</b>	<b>0.0289</b>	<b>3.5680</b>	<b>0.9498</b>	<b>0.0272</b>	<b>0.9770</b>		<b>3,987.6472</b>	<b>3,987.6472</b>	<b>0.1407</b>	<b>0.2646</b>	<b>4,070.0097</b>

The Ritz-Carlton Residences - Orange County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.6 Paving - 2025**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7854	7.4371	11.6737	0.0179		0.3503	0.3503		0.3234	0.3234		1,710.0067	1,710.0067	0.5420		1,723.5556
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.7854</b>	<b>7.4371</b>	<b>11.6737</b>	<b>0.0179</b>		<b>0.3503</b>	<b>0.3503</b>		<b>0.3234</b>	<b>0.3234</b>		<b>1,710.0067</b>	<b>1,710.0067</b>	<b>0.5420</b>		<b>1,723.5556</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0375	0.0220	0.4027	1.3200e-003	0.1677	7.8000e-004	0.1685	0.0445	7.2000e-004	0.0452		137.8576	137.8576	2.5900e-003	2.7200e-003	138.7324
<b>Total</b>	<b>0.0375</b>	<b>0.0220</b>	<b>0.4027</b>	<b>1.3200e-003</b>	<b>0.1677</b>	<b>7.8000e-004</b>	<b>0.1685</b>	<b>0.0445</b>	<b>7.2000e-004</b>	<b>0.0452</b>		<b>137.8576</b>	<b>137.8576</b>	<b>2.5900e-003</b>	<b>2.7200e-003</b>	<b>138.7324</b>

The Ritz-Carlton Residences - Orange County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.6 Paving - 2025**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7344	15.6108	12.9737	0.0179		0.5580	0.5580		0.5580	0.5580	0.0000	1,710.0067	1,710.0067	0.5420		1,723.5556
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.7344</b>	<b>15.6108</b>	<b>12.9737</b>	<b>0.0179</b>		<b>0.5580</b>	<b>0.5580</b>		<b>0.5580</b>	<b>0.5580</b>	<b>0.0000</b>	<b>1,710.0067</b>	<b>1,710.0067</b>	<b>0.5420</b>		<b>1,723.5556</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0375	0.0220	0.4027	1.3200e-003	0.1677	7.8000e-004	0.1685	0.0445	7.2000e-004	0.0452		137.8576	137.8576	2.5900e-003	2.7200e-003	138.7324
<b>Total</b>	<b>0.0375</b>	<b>0.0220</b>	<b>0.4027</b>	<b>1.3200e-003</b>	<b>0.1677</b>	<b>7.8000e-004</b>	<b>0.1685</b>	<b>0.0445</b>	<b>7.2000e-004</b>	<b>0.0452</b>		<b>137.8576</b>	<b>137.8576</b>	<b>2.5900e-003</b>	<b>2.7200e-003</b>	<b>138.7324</b>



The Ritz-Carlton Residences - Orange County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.7 Architectural Coating - 2024**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	7.8284					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
<b>Total</b>	<b>8.0092</b>	<b>1.2188</b>	<b>1.8101</b>	<b>2.9700e-003</b>		<b>0.0609</b>	<b>0.0609</b>		<b>0.0609</b>	<b>0.0609</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0159</b>		<b>281.8443</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1430	0.0875	1.5412	4.9300e-003	0.6036	2.9400e-003	0.6065	0.1601	2.7000e-003	0.1628		508.7276	508.7276	0.0103	0.0104	512.0837
<b>Total</b>	<b>0.1430</b>	<b>0.0875</b>	<b>1.5412</b>	<b>4.9300e-003</b>	<b>0.6036</b>	<b>2.9400e-003</b>	<b>0.6065</b>	<b>0.1601</b>	<b>2.7000e-003</b>	<b>0.1628</b>		<b>508.7276</b>	<b>508.7276</b>	<b>0.0103</b>	<b>0.0104</b>	<b>512.0837</b>

The Ritz-Carlton Residences - Orange County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.7 Architectural Coating - 2024**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	7.8284					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1139	2.3524	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0159		281.8443
<b>Total</b>	<b>7.9423</b>	<b>2.3524</b>	<b>1.8324</b>	<b>2.9700e-003</b>		<b>0.0951</b>	<b>0.0951</b>		<b>0.0951</b>	<b>0.0951</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0159</b>		<b>281.8443</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1430	0.0875	1.5412	4.9300e-003	0.6036	2.9400e-003	0.6065	0.1601	2.7000e-003	0.1628		508.7276	508.7276	0.0103	0.0104	512.0837
<b>Total</b>	<b>0.1430</b>	<b>0.0875</b>	<b>1.5412</b>	<b>4.9300e-003</b>	<b>0.6036</b>	<b>2.9400e-003</b>	<b>0.6065</b>	<b>0.1601</b>	<b>2.7000e-003</b>	<b>0.1628</b>		<b>508.7276</b>	<b>508.7276</b>	<b>0.0103</b>	<b>0.0104</b>	<b>512.0837</b>

The Ritz-Carlton Residences - Orange County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.7 Architectural Coating - 2025**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	7.8284					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
<b>Total</b>	<b>7.9993</b>	<b>1.1455</b>	<b>1.8091</b>	<b>2.9700e-003</b>		<b>0.0515</b>	<b>0.0515</b>		<b>0.0515</b>	<b>0.0515</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0154</b>		<b>281.8319</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1351	0.0793	1.4498	4.7600e-003	0.6036	2.8100e-003	0.6064	0.1601	2.5900e-003	0.1627		496.2875	496.2875	9.3200e-003	9.7900e-003	499.4365
<b>Total</b>	<b>0.1351</b>	<b>0.0793</b>	<b>1.4498</b>	<b>4.7600e-003</b>	<b>0.6036</b>	<b>2.8100e-003</b>	<b>0.6064</b>	<b>0.1601</b>	<b>2.5900e-003</b>	<b>0.1627</b>		<b>496.2875</b>	<b>496.2875</b>	<b>9.3200e-003</b>	<b>9.7900e-003</b>	<b>499.4365</b>

The Ritz-Carlton Residences - Orange County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.7 Architectural Coating - 2025**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	7.8284					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1139	2.3524	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0154		281.8319
<b>Total</b>	<b>7.9423</b>	<b>2.3524</b>	<b>1.8324</b>	<b>2.9700e-003</b>		<b>0.0951</b>	<b>0.0951</b>		<b>0.0951</b>	<b>0.0951</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0154</b>		<b>281.8319</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1351	0.0793	1.4498	4.7600e-003	0.6036	2.8100e-003	0.6064	0.1601	2.5900e-003	0.1627		496.2875	496.2875	9.3200e-003	9.7900e-003	499.4365
<b>Total</b>	<b>0.1351</b>	<b>0.0793</b>	<b>1.4498</b>	<b>4.7600e-003</b>	<b>0.6036</b>	<b>2.8100e-003</b>	<b>0.6064</b>	<b>0.1601</b>	<b>2.5900e-003</b>	<b>0.1627</b>		<b>496.2875</b>	<b>496.2875</b>	<b>9.3200e-003</b>	<b>9.7900e-003</b>	<b>499.4365</b>

The Ritz-Carlton Residences - Orange County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**4.0 Operational Detail - Mobile**

**4.1 Mitigation Measures Mobile**

Increase Density

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.5881	1.4126	14.0928	0.0318	3.5656	0.0219	3.5875	0.9504	0.0204	0.9708		3,323.020 0	3,323.020 0	0.2070	0.1366	3,368.908 4
Unmitigated	1.8993	1.8893	19.1441	0.0460	5.1977	0.0307	5.2284	1.3854	0.0286	1.4140		4,800.454 4	4,800.454 4	0.2701	0.1824	4,861.550 3

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments High Rise	721.86	721.86	721.86	2,466,705	1,692,160
Enclosed Parking with Elevator	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
<b>Total</b>	<b>721.86</b>	<b>721.86</b>	<b>721.86</b>	<b>2,466,705</b>	<b>1,692,160</b>

**4.3 Trip Type Information**

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments High Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

The Ritz-Carlton Residences - Orange County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments High Rise	0.547453	0.060181	0.185039	0.126487	0.024236	0.006679	0.014707	0.004926	0.000662	0.000378	0.024745	0.000705	0.003801
Enclosed Parking with Elevator	0.547453	0.060181	0.185039	0.126487	0.024236	0.006679	0.014707	0.004926	0.000662	0.000378	0.024745	0.000705	0.003801
Other Non-Asphalt Surfaces	0.547453	0.060181	0.185039	0.126487	0.024236	0.006679	0.014707	0.004926	0.000662	0.000378	0.024745	0.000705	0.003801

**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
NaturalGas Mitigated	0.0524	0.4476	0.1905	2.8600e-003		0.0362	0.0362		0.0362	0.0362		571.4068	571.4068	0.0110	0.0105	574.8024
NaturalGas Unmitigated	0.0524	0.4476	0.1905	2.8600e-003		0.0362	0.0362		0.0362	0.0362		571.4068	571.4068	0.0110	0.0105	574.8024

The Ritz-Carlton Residences - Orange County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**5.2 Energy by Land Use - Natural Gas**

Unmitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments High Rise	4856.96	0.0524	0.4476	0.1905	2.8600e-003		0.0362	0.0362		0.0362	0.0362		571.4068	571.4068	0.0110	0.0105	574.8024
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0524</b>	<b>0.4476</b>	<b>0.1905</b>	<b>2.8600e-003</b>		<b>0.0362</b>	<b>0.0362</b>		<b>0.0362</b>	<b>0.0362</b>		<b>571.4068</b>	<b>571.4068</b>	<b>0.0110</b>	<b>0.0105</b>	<b>574.8024</b>

The Ritz-Carlton Residences - Orange County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**5.2 Energy by Land Use - NaturalGas**

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments High Rise	4.85696	0.0524	0.4476	0.1905	2.8600e-003		0.0362	0.0362		0.0362	0.0362		571.4068	571.4068	0.0110	0.0105	574.8024
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0524</b>	<b>0.4476</b>	<b>0.1905</b>	<b>2.8600e-003</b>		<b>0.0362</b>	<b>0.0362</b>		<b>0.0362</b>	<b>0.0362</b>		<b>571.4068</b>	<b>571.4068</b>	<b>0.0110</b>	<b>0.0105</b>	<b>574.8024</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

Use only Natural Gas Hearths



The Ritz-Carlton Residences - Orange County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	9.7683	2.5255	14.1978	0.0159		0.2649	0.2649		0.2649	0.2649	0.0000	3,054.1499	3,054.1499	0.0812	0.0556	3,072.7347
Unmitigated	51.1543	3.4507	94.0474	0.2070		12.2188	12.2188		12.2188	12.2188	1,489.3400	2,885.7969	4,375.1369	4.4646	0.1011	4,516.8750

**6.2 Area by SubCategory**

**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.7400					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	8.3495					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	41.6637	3.2990	80.8597	0.2063		12.1457	12.1457		12.1457	12.1457	1,489.3400	2,862.0000	4,351.3400	4.4415	0.1011	4,492.5011
Landscaping	0.4011	0.1517	13.1877	7.0000e-004		0.0730	0.0730		0.0730	0.0730		23.7969	23.7969	0.0231		24.3739
<b>Total</b>	<b>51.1543</b>	<b>3.4507</b>	<b>94.0474</b>	<b>0.2070</b>		<b>12.2188</b>	<b>12.2188</b>		<b>12.2188</b>	<b>12.2188</b>	<b>1,489.3400</b>	<b>2,885.7969</b>	<b>4,375.1369</b>	<b>4.4646</b>	<b>0.1011</b>	<b>4,516.8750</b>

The Ritz-Carlton Residences - Orange County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.7400					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	8.3495					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.2778	2.3738	1.0101	0.0152		0.1919	0.1919		0.1919	0.1919	0.0000	3,030.3529	3,030.3529	0.0581	0.0556	3,048.3608
Landscaping	0.4011	0.1517	13.1877	7.0000e-004		0.0730	0.0730		0.0730	0.0730		23.7969	23.7969	0.0231		24.3739
<b>Total</b>	<b>9.7683</b>	<b>2.5255</b>	<b>14.1978</b>	<b>0.0159</b>		<b>0.2649</b>	<b>0.2649</b>		<b>0.2649</b>	<b>0.2649</b>	<b>0.0000</b>	<b>3,054.1498</b>	<b>3,054.1498</b>	<b>0.0812</b>	<b>0.0556</b>	<b>3,072.7347</b>

**7.0 Water Detail**

**7.1 Mitigation Measures Water**

Use Water Efficient Irrigation System

**8.0 Waste Detail**

**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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The Ritz-Carlton Residences - Orange County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**10.0 Stationary Equipment**

**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	1	0.13	50	350	0.73	Diesel

**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
----------------	--------	----------------	-----------------	---------------	-----------

**User Defined Equipment**

Equipment Type	Number
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**10.1 Stationary Sources**

**Unmitigated/Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Emergency Generator - Diesel (300 - 600 HP)	0.0747	0.2087	0.1904	3.6000e-004		0.0110	0.0110		0.0110	0.0110		38.1979	38.1979	5.3600e-003		38.3318
<b>Total</b>	<b>0.0747</b>	<b>0.2087</b>	<b>0.1904</b>	<b>3.6000e-004</b>		<b>0.0110</b>	<b>0.0110</b>		<b>0.0110</b>	<b>0.0110</b>		<b>38.1979</b>	<b>38.1979</b>	<b>5.3600e-003</b>		<b>38.3318</b>

**11.0 Vegetation**

The Ritz-Carlton Residences - Orange County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**The Ritz-Carlton Residences**

**Orange County, Winter**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	808.00	Space	1.03	323,200.00	0
Other Non-Asphalt Surfaces	1.17	Acre	1.17	50,965.20	0
Apartments High Rise	159.00	Dwelling Unit	0.57	414,999.00	360

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	30
<b>Climate Zone</b>	8	<b>Operational Year</b>		2025	
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MW hr)</b>	390.98	<b>CH4 Intensity (lb/MW hr)</b>	0.033	<b>N2O Intensity (lb/MW hr)</b>	0.004

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics -

Land Use - Based on the Project Description provided to LSA on January 21, 2022. Other non-asphalt surfaces includes the vehicle entry, pedestrian walk, landscaping, and pool deck.

Construction Phase - 6 months of demolition then construction start 12/31/22, 36 month duration, complete 12/31/25.

Demolition - The project would demolish approximately 263,194 square feet.

Grading - The project would require the export of 205,700 cubic yards of soil.

Vehicle Trips - Trip rates based on the average daily trip generation provided in the project's Trip Generation letter dated January 26, 2022.

Woodstoves - Assuming no woodstoves or wood-burning hearths.

Construction Off-road Equipment Mitigation - Assuming use of Tier 2 construction equipment and compliance with SCAQMD Rule 403: Fugitive Dust measures.

Mobile Land Use Mitigation -



The Ritz-Carlton Residences - Orange County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstructionPhase	NumDays	20.00	180.00
tblConstructionPhase	NumDays	3.00	10.00
tblConstructionPhase	NumDays	6.00	100.00
tblConstructionPhase	NumDays	220.00	770.00
tblConstructionPhase	NumDays	10.00	345.00
tblConstructionPhase	NumDays	10.00	40.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	PhaseEndDate	6/28/2022	12/30/2022
tblConstructionPhase	PhaseEndDate	7/1/2022	1/11/2023
tblConstructionPhase	PhaseEndDate	7/11/2022	5/8/2023
tblConstructionPhase	PhaseEndDate	5/15/2023	10/22/2025
tblConstructionPhase	PhaseEndDate	6/12/2023	12/31/2025
tblConstructionPhase	PhaseEndDate	5/29/2023	12/8/2025
tblConstructionPhase	PhaseStartDate	6/1/2022	6/4/2022
tblConstructionPhase	PhaseStartDate	6/29/2022	12/31/2022
tblConstructionPhase	PhaseStartDate	7/2/2022	1/12/2023
tblConstructionPhase	PhaseStartDate	7/12/2022	5/9/2023
tblConstructionPhase	PhaseStartDate	5/30/2023	11/25/2024

The Ritz-Carlton Residences - Orange County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

tblConstructionPhase	PhaseStartDate	5/16/2023	10/23/2025
tblGrading	MaterialExported	0.00	205,700.00
tblLandUse	LandUseSquareFeet	159,000.00	414,999.00
tblLandUse	LotAcreage	7.27	1.03
tblLandUse	LotAcreage	2.56	0.57
tblLandUse	Population	455.00	360.00
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	350.00
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	0.13
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
tblVehicleTrips	ST_TR	4.53	4.54
tblVehicleTrips	SU_TR	3.59	4.54
tblVehicleTrips	WD_TR	4.45	4.54

**2.0 Emissions Summary**

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The Ritz-Carlton Residences - Orange County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**2.1 Overall Construction (Maximum Daily Emission)**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	1.7578	17.7266	14.6537	0.0293	1.7006	0.8465	2.5471	0.2882	0.7911	1.0793	0.0000	2,895.7909	2,895.7909	0.7701	0.0751	2,934.1176
2023	2.6273	46.4340	23.1428	0.1659	11.9113	0.8027	12.7140	4.7176	0.7458	5.4634	0.0000	18,547.1587	18,547.1587	2.3049	2.6426	19,392.2670
2024	10.6281	17.4693	25.7478	0.0702	4.1427	0.6315	4.7741	1.1099	0.6066	1.7165	0.0000	7,014.1972	7,014.1972	0.5981	0.2858	7,114.3065
2025	10.4596	16.5277	25.1391	0.0689	4.1426	0.5533	4.6959	1.1099	0.5311	1.6411	0.0000	6,914.8298	6,914.8298	0.5865	0.2786	7,012.5150
<b>Maximum</b>	<b>10.6281</b>	<b>46.4340</b>	<b>25.7478</b>	<b>0.1659</b>	<b>11.9113</b>	<b>0.8465</b>	<b>12.7140</b>	<b>4.7176</b>	<b>0.7911</b>	<b>5.4634</b>	<b>0.0000</b>	<b>18,547.1587</b>	<b>18,547.1587</b>	<b>2.3049</b>	<b>2.6426</b>	<b>19,392.2670</b>





The Ritz-Carlton Residences - Orange County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	51.1543	3.4507	94.0474	0.2070		12.2188	12.2188		12.2188	12.2188	1,489.340 0	2,885.796 9	4,375.136 9	4.4646	0.1011	4,516.875 0
Energy	0.0524	0.4476	0.1905	2.8600e- 003		0.0362	0.0362		0.0362	0.0362		571.4068	571.4068	0.0110	0.0105	574.8024
Mobile	1.8860	2.0284	18.9381	0.0442	5.1977	0.0307	5.2284	1.3854	0.0286	1.4140		4,617.768 3	4,617.768 3	0.2784	0.1898	4,681.283 4
Stationary	0.0747	0.2087	0.1904	3.6000e- 004		0.0110	0.0110		0.0110	0.0110		38.1979	38.1979	5.3600e- 003		38.3318
<b>Total</b>	<b>53.1673</b>	<b>6.1354</b>	<b>113.3663</b>	<b>0.2544</b>	<b>5.1977</b>	<b>12.2966</b>	<b>17.4944</b>	<b>1.3854</b>	<b>12.2945</b>	<b>13.6799</b>	<b>1,489.340 0</b>	<b>8,113.169 9</b>	<b>9,602.509 9</b>	<b>4.7593</b>	<b>0.3014</b>	<b>9,811.292 5</b>

The Ritz-Carlton Residences - Orange County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**2.2 Overall Operational**

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	9.7683	2.5255	14.1978	0.0159		0.2649	0.2649		0.2649	0.2649	0.0000	3,054.1499	3,054.1499	0.0812	0.0556	3,072.7347
Energy	0.0524	0.4476	0.1905	2.8600e-003		0.0362	0.0362		0.0362	0.0362		571.4068	571.4068	0.0110	0.0105	574.8024
Mobile	1.5705	1.5168	14.1235	0.0306	3.5656	0.0219	3.5875	0.9504	0.0204	0.9708		3,198.0807	3,198.0807	0.2153	0.1424	3,245.8993
Stationary	0.0747	0.2087	0.1904	3.6000e-004		0.0110	0.0110		0.0110	0.0110		38.1979	38.1979	5.3600e-003		38.3318
<b>Total</b>	<b>11.4659</b>	<b>4.6986</b>	<b>28.7021</b>	<b>0.0497</b>	<b>3.5656</b>	<b>0.3340</b>	<b>3.8996</b>	<b>0.9504</b>	<b>0.3325</b>	<b>1.2829</b>	<b>0.0000</b>	<b>6,861.8353</b>	<b>6,861.8353</b>	<b>0.3128</b>	<b>0.2084</b>	<b>6,931.7681</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>78.43</b>	<b>23.42</b>	<b>74.68</b>	<b>80.47</b>	<b>31.40</b>	<b>97.28</b>	<b>77.71</b>	<b>31.40</b>	<b>97.30</b>	<b>90.62</b>	<b>100.00</b>	<b>15.42</b>	<b>28.54</b>	<b>93.43</b>	<b>30.83</b>	<b>29.35</b>

**3.0 Construction Detail**

**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/4/2022	12/30/2022	6	180	
2	Site Preparation	Site Preparation	12/31/2022	1/11/2023	6	10	
3	Grading	Grading	1/12/2023	5/8/2023	6	100	
4	Building Construction	Building Construction	5/9/2023	10/22/2025	6	770	

The Ritz-Carlton Residences - Orange County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

5	Paving	Paving	10/23/2025	12/8/2025	6	40
6	Architectural Coating	Architectural Coating	11/25/2024	12/31/2025	6	345

**Acres of Grading (Site Preparation Phase): 15**

**Acres of Grading (Grading Phase): 100**

**Acres of Paving: 2.2**

**Residential Indoor: 840,373; Residential Outdoor: 280,124; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 22,450 (Architectural Coating – sqft)**

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Scrapers	1	8.00	367	0.48
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36

The Ritz-Carlton Residences - Orange County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	1,197.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	25,713.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	272.00	78.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	54.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

The Ritz-Carlton Residences - Orange County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.2 Demolition - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.4393	0.0000	1.4393	0.2179	0.0000	0.2179			0.0000			0.0000
Off-Road	1.6889	16.6217	13.9605	0.0241		0.8379	0.8379		0.7829	0.7829		2,323.4168	2,323.4168	0.5921		2,338.2191
<b>Total</b>	<b>1.6889</b>	<b>16.6217</b>	<b>13.9605</b>	<b>0.0241</b>	<b>1.4393</b>	<b>0.8379</b>	<b>2.2772</b>	<b>0.2179</b>	<b>0.7829</b>	<b>1.0008</b>		<b>2,323.4168</b>	<b>2,323.4168</b>	<b>0.5921</b>		<b>2,338.2191</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0263	1.0760	0.2951	3.9700e-003	0.1160	7.8500e-003	0.1238	0.0318	7.5100e-003	0.0393		449.7109	449.7109	0.0428	0.0720	472.2461
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0426	0.0289	0.3981	1.2100e-003	0.1453	7.8000e-004	0.1461	0.0385	7.2000e-004	0.0393		122.6631	122.6631	3.0800e-003	3.0600e-003	123.6524
<b>Total</b>	<b>0.0689</b>	<b>1.1049</b>	<b>0.6932</b>	<b>5.1800e-003</b>	<b>0.2613</b>	<b>8.6300e-003</b>	<b>0.2699</b>	<b>0.0703</b>	<b>8.2300e-003</b>	<b>0.0785</b>		<b>572.3740</b>	<b>572.3740</b>	<b>0.0459</b>	<b>0.0751</b>	<b>595.8985</b>

The Ritz-Carlton Residences - Orange County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.2 Demolition - 2022**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6477	0.0000	0.6477	0.0981	0.0000	0.0981			0.0000			0.0000
Off-Road	0.8857	21.2053	15.4154	0.0241		0.7182	0.7182		0.7182	0.7182	0.0000	2,323.4168	2,323.4168	0.5921		2,338.2191
<b>Total</b>	<b>0.8857</b>	<b>21.2053</b>	<b>15.4154</b>	<b>0.0241</b>	<b>0.6477</b>	<b>0.7182</b>	<b>1.3659</b>	<b>0.0981</b>	<b>0.7182</b>	<b>0.8163</b>	<b>0.0000</b>	<b>2,323.4168</b>	<b>2,323.4168</b>	<b>0.5921</b>		<b>2,338.2191</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0263	1.0760	0.2951	3.9700e-003	0.1160	7.8500e-003	0.1238	0.0318	7.5100e-003	0.0393		449.7109	449.7109	0.0428	0.0720	472.2461
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0426	0.0289	0.3981	1.2100e-003	0.1453	7.8000e-004	0.1461	0.0385	7.2000e-004	0.0393		122.6631	122.6631	3.0800e-003	3.0600e-003	123.6524
<b>Total</b>	<b>0.0689</b>	<b>1.1049</b>	<b>0.6932</b>	<b>5.1800e-003</b>	<b>0.2613</b>	<b>8.6300e-003</b>	<b>0.2699</b>	<b>0.0703</b>	<b>8.2300e-003</b>	<b>0.0785</b>		<b>572.3740</b>	<b>572.3740</b>	<b>0.0459</b>	<b>0.0751</b>	<b>595.8985</b>

The Ritz-Carlton Residences - Orange County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.3 Site Preparation - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5908	0.0000	1.5908	0.1718	0.0000	0.1718			0.0000			0.0000
Off-Road	1.3784	15.6673	10.0558	0.0245		0.5952	0.5952		0.5476	0.5476		2,375.1569	2,375.1569	0.7682		2,394.3613
<b>Total</b>	<b>1.3784</b>	<b>15.6673</b>	<b>10.0558</b>	<b>0.0245</b>	<b>1.5908</b>	<b>0.5952</b>	<b>2.1859</b>	<b>0.1718</b>	<b>0.5476</b>	<b>0.7193</b>		<b>2,375.1569</b>	<b>2,375.1569</b>	<b>0.7682</b>		<b>2,394.3613</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0262	0.0178	0.2450	7.4000e-004	0.0894	4.8000e-004	0.0899	0.0237	4.4000e-004	0.0242		75.4850	75.4850	1.8900e-003	1.8800e-003	76.0938
<b>Total</b>	<b>0.0262</b>	<b>0.0178</b>	<b>0.2450</b>	<b>7.4000e-004</b>	<b>0.0894</b>	<b>4.8000e-004</b>	<b>0.0899</b>	<b>0.0237</b>	<b>4.4000e-004</b>	<b>0.0242</b>		<b>75.4850</b>	<b>75.4850</b>	<b>1.8900e-003</b>	<b>1.8800e-003</b>	<b>76.0938</b>



The Ritz-Carlton Residences - Orange County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.3 Site Preparation - 2022**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7158	0.0000	0.7158	0.0773	0.0000	0.0773			0.0000			0.0000
Off-Road	0.6625	20.0179	13.6431	0.0245		0.4988	0.4988		0.4988	0.4988	0.0000	2,375.1569	2,375.1569	0.7682		2,394.3613
<b>Total</b>	<b>0.6625</b>	<b>20.0179</b>	<b>13.6431</b>	<b>0.0245</b>	<b>0.7158</b>	<b>0.4988</b>	<b>1.2146</b>	<b>0.0773</b>	<b>0.4988</b>	<b>0.5760</b>	<b>0.0000</b>	<b>2,375.1569</b>	<b>2,375.1569</b>	<b>0.7682</b>		<b>2,394.3613</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0262	0.0178	0.2450	7.4000e-004	0.0894	4.8000e-004	0.0899	0.0237	4.4000e-004	0.0242		75.4850	75.4850	1.8900e-003	1.8800e-003	76.0938
<b>Total</b>	<b>0.0262</b>	<b>0.0178</b>	<b>0.2450</b>	<b>7.4000e-004</b>	<b>0.0894</b>	<b>4.8000e-004</b>	<b>0.0899</b>	<b>0.0237</b>	<b>4.4000e-004</b>	<b>0.0242</b>		<b>75.4850</b>	<b>75.4850</b>	<b>1.8900e-003</b>	<b>1.8800e-003</b>	<b>76.0938</b>

The Ritz-Carlton Residences - Orange County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.3 Site Preparation - 2023**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5908	0.0000	1.5908	0.1718	0.0000	0.1718			0.0000			0.0000
Off-Road	1.3027	14.2802	9.7820	0.0245		0.5419	0.5419		0.4985	0.4985		2,374.863 4	2,374.863 4	0.7681		2,394.065 4
<b>Total</b>	<b>1.3027</b>	<b>14.2802</b>	<b>9.7820</b>	<b>0.0245</b>	<b>1.5908</b>	<b>0.5419</b>	<b>2.1326</b>	<b>0.1718</b>	<b>0.4985</b>	<b>0.6703</b>		<b>2,374.863 4</b>	<b>2,374.863 4</b>	<b>0.7681</b>		<b>2,394.065 4</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0246	0.0158	0.2282	7.2000e-004	0.0894	4.6000e-004	0.0899	0.0237	4.2000e-004	0.0241		73.5325	73.5325	1.7200e-003	1.7500e-003	74.0978
<b>Total</b>	<b>0.0246</b>	<b>0.0158</b>	<b>0.2282</b>	<b>7.2000e-004</b>	<b>0.0894</b>	<b>4.6000e-004</b>	<b>0.0899</b>	<b>0.0237</b>	<b>4.2000e-004</b>	<b>0.0241</b>		<b>73.5325</b>	<b>73.5325</b>	<b>1.7200e-003</b>	<b>1.7500e-003</b>	<b>74.0978</b>

The Ritz-Carlton Residences - Orange County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.3 Site Preparation - 2023**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7158	0.0000	0.7158	0.0773	0.0000	0.0773			0.0000			0.0000
Off-Road	0.6625	20.0179	13.6431	0.0245		0.4988	0.4988		0.4988	0.4988	0.0000	2,374.863 4	2,374.863 4	0.7681		2,394.065 4
<b>Total</b>	<b>0.6625</b>	<b>20.0179</b>	<b>13.6431</b>	<b>0.0245</b>	<b>0.7158</b>	<b>0.4988</b>	<b>1.2146</b>	<b>0.0773</b>	<b>0.4988</b>	<b>0.5760</b>	<b>0.0000</b>	<b>2,374.863 4</b>	<b>2,374.863 4</b>	<b>0.7681</b>		<b>2,394.065 4</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0246	0.0158	0.2282	7.2000e-004	0.0894	4.6000e-004	0.0899	0.0237	4.2000e-004	0.0241		73.5325	73.5325	1.7200e-003	1.7500e-003	74.0978
<b>Total</b>	<b>0.0246</b>	<b>0.0158</b>	<b>0.2282</b>	<b>7.2000e-004</b>	<b>0.0894</b>	<b>4.6000e-004</b>	<b>0.0899</b>	<b>0.0237</b>	<b>4.2000e-004</b>	<b>0.0241</b>		<b>73.5325</b>	<b>73.5325</b>	<b>1.7200e-003</b>	<b>1.7500e-003</b>	<b>74.0978</b>

The Ritz-Carlton Residences - Orange County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.4 Grading - 2023**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.3152	0.0000	7.3152	3.4600	0.0000	3.4600			0.0000			0.0000
Off-Road	1.3330	14.4676	8.7038	0.0206		0.6044	0.6044		0.5560	0.5560		1,995.6147	1,995.6147	0.6454		2,011.7503
<b>Total</b>	<b>1.3330</b>	<b>14.4676</b>	<b>8.7038</b>	<b>0.0206</b>	<b>7.3152</b>	<b>0.6044</b>	<b>7.9196</b>	<b>3.4600</b>	<b>0.5560</b>	<b>4.0160</b>		<b>1,995.6147</b>	<b>1,995.6147</b>	<b>0.6454</b>		<b>2,011.7503</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.5044	31.9466	10.6195	0.1444	4.4843	0.1978	4.6821	1.2280	0.1893	1.4173		16,459.6283	16,459.6283	1.6573	2.6404	17,287.8944
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0308	0.0198	0.2853	9.0000e-004	0.1118	5.7000e-004	0.1124	0.0296	5.3000e-004	0.0302		91.9157	91.9157	2.1500e-003	2.1900e-003	92.6223
<b>Total</b>	<b>0.5352</b>	<b>31.9664</b>	<b>10.9048</b>	<b>0.1453</b>	<b>4.5961</b>	<b>0.1984</b>	<b>4.7945</b>	<b>1.2576</b>	<b>0.1898</b>	<b>1.4474</b>		<b>16,551.5439</b>	<b>16,551.5439</b>	<b>1.6594</b>	<b>2.6426</b>	<b>17,380.5167</b>

The Ritz-Carlton Residences - Orange County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.4 Grading - 2023**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.2919	0.0000	3.2919	1.5570	0.0000	1.5570			0.0000			0.0000
Off-Road	0.6262	18.1050	12.1450	0.0206		0.4850	0.4850		0.4850	0.4850	0.0000	1,995.6147	1,995.6147	0.6454		2,011.7503
<b>Total</b>	<b>0.6262</b>	<b>18.1050</b>	<b>12.1450</b>	<b>0.0206</b>	<b>3.2919</b>	<b>0.4850</b>	<b>3.7769</b>	<b>1.5570</b>	<b>0.4850</b>	<b>2.0420</b>	<b>0.0000</b>	<b>1,995.6147</b>	<b>1,995.6147</b>	<b>0.6454</b>		<b>2,011.7503</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.5044	31.9466	10.6195	0.1444	4.4843	0.1978	4.6821	1.2280	0.1893	1.4173		16,459.6283	16,459.6283	1.6573	2.6404	17,287.8944
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0308	0.0198	0.2853	9.0000e-004	0.1118	5.7000e-004	0.1124	0.0296	5.3000e-004	0.0302		91.9157	91.9157	2.1500e-003	2.1900e-003	92.6223
<b>Total</b>	<b>0.5352</b>	<b>31.9664</b>	<b>10.9048</b>	<b>0.1453</b>	<b>4.5961</b>	<b>0.1984</b>	<b>4.7945</b>	<b>1.2576</b>	<b>0.1898</b>	<b>1.4474</b>		<b>16,551.5439</b>	<b>16,551.5439</b>	<b>1.6594</b>	<b>2.6426</b>	<b>17,380.5167</b>

The Ritz-Carlton Residences - Orange County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.5 Building Construction - 2023**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7136	13.6239	14.2145	0.0250		0.6136	0.6136		0.5880	0.5880		2,289.5233	2,289.5233	0.4330		2,300.3479
<b>Total</b>	<b>1.7136</b>	<b>13.6239</b>	<b>14.2145</b>	<b>0.0250</b>		<b>0.6136</b>	<b>0.6136</b>		<b>0.5880</b>	<b>0.5880</b>		<b>2,289.5233</b>	<b>2,289.5233</b>	<b>0.4330</b>		<b>2,300.3479</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0760	2.8555	1.1696	0.0140	0.4988	0.0141	0.5129	0.1435	0.0135	0.1570		1,542.3704	1,542.3704	0.0914	0.2215	1,610.6568
Worker	0.8376	0.5384	7.7587	0.0244	3.0403	0.0156	3.0559	0.8063	0.0143	0.8206		2,500.1056	2,500.1056	0.0584	0.0596	2,519.3260
<b>Total</b>	<b>0.9136</b>	<b>3.3939</b>	<b>8.9283</b>	<b>0.0385</b>	<b>3.5391</b>	<b>0.0297</b>	<b>3.5687</b>	<b>0.9499</b>	<b>0.0278</b>	<b>0.9777</b>		<b>4,042.4759</b>	<b>4,042.4759</b>	<b>0.1497</b>	<b>0.2811</b>	<b>4,129.9828</b>

The Ritz-Carlton Residences - Orange County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.5 Building Construction - 2023**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9471	20.0464	15.4081	0.0250		0.8178	0.8178		0.8178	0.8178	0.0000	2,289.5233	2,289.5233	0.4330		2,300.3479
<b>Total</b>	<b>0.9471</b>	<b>20.0464</b>	<b>15.4081</b>	<b>0.0250</b>		<b>0.8178</b>	<b>0.8178</b>		<b>0.8178</b>	<b>0.8178</b>	<b>0.0000</b>	<b>2,289.5233</b>	<b>2,289.5233</b>	<b>0.4330</b>		<b>2,300.3479</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0760	2.8555	1.1696	0.0140	0.4988	0.0141	0.5129	0.1435	0.0135	0.1570		1,542.3704	1,542.3704	0.0914	0.2215	1,610.6568
Worker	0.8376	0.5384	7.7587	0.0244	3.0403	0.0156	3.0559	0.8063	0.0143	0.8206		2,500.1056	2,500.1056	0.0584	0.0596	2,519.3260
<b>Total</b>	<b>0.9136</b>	<b>3.3939</b>	<b>8.9283</b>	<b>0.0385</b>	<b>3.5391</b>	<b>0.0297</b>	<b>3.5687</b>	<b>0.9499</b>	<b>0.0278</b>	<b>0.9777</b>		<b>4,042.4759</b>	<b>4,042.4759</b>	<b>0.1497</b>	<b>0.2811</b>	<b>4,129.9828</b>

The Ritz-Carlton Residences - Orange County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.5 Building Construction - 2024**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5971	12.8235	14.1002	0.0250		0.5381	0.5381		0.5153	0.5153		2,289.654 1	2,289.654 1	0.4265		2,300.315 4
<b>Total</b>	<b>1.5971</b>	<b>12.8235</b>	<b>14.1002</b>	<b>0.0250</b>		<b>0.5381</b>	<b>0.5381</b>		<b>0.5153</b>	<b>0.5153</b>		<b>2,289.654 1</b>	<b>2,289.654 1</b>	<b>0.4265</b>		<b>2,300.315 4</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0749	2.8473	1.1604	0.0138	0.4987	0.0148	0.5135	0.1435	0.0141	0.1577		1,518.498 7	1,518.498 7	0.0923	0.2190	1,586.059 4
Worker	0.7900	0.4836	7.2398	0.0237	3.0403	0.0148	3.0551	0.8063	0.0136	0.8199		2,440.154 0	2,440.154 0	0.0530	0.0557	2,458.085 2
<b>Total</b>	<b>0.8649</b>	<b>3.3310</b>	<b>8.4002</b>	<b>0.0375</b>	<b>3.5391</b>	<b>0.0296</b>	<b>3.5686</b>	<b>0.9499</b>	<b>0.0277</b>	<b>0.9776</b>		<b>3,958.652 7</b>	<b>3,958.652 7</b>	<b>0.1453</b>	<b>0.2747</b>	<b>4,044.144 7</b>



The Ritz-Carlton Residences - Orange County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.5 Building Construction - 2024**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9471	20.0464	15.4081	0.0250		0.8178	0.8178		0.8178	0.8178	0.0000	2,289.654 1	2,289.654 1	0.4265		2,300.315 4
<b>Total</b>	<b>0.9471</b>	<b>20.0464</b>	<b>15.4081</b>	<b>0.0250</b>		<b>0.8178</b>	<b>0.8178</b>		<b>0.8178</b>	<b>0.8178</b>	<b>0.0000</b>	<b>2,289.654 1</b>	<b>2,289.654 1</b>	<b>0.4265</b>		<b>2,300.315 4</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0749	2.8473	1.1604	0.0138	0.4987	0.0148	0.5135	0.1435	0.0141	0.1577		1,518.498 7	1,518.498 7	0.0923	0.2190	1,586.059 4
Worker	0.7900	0.4836	7.2398	0.0237	3.0403	0.0148	3.0551	0.8063	0.0136	0.8199		2,440.154 0	2,440.154 0	0.0530	0.0557	2,458.085 2
<b>Total</b>	<b>0.8649</b>	<b>3.3310</b>	<b>8.4002</b>	<b>0.0375</b>	<b>3.5391</b>	<b>0.0296</b>	<b>3.5686</b>	<b>0.9499</b>	<b>0.0277</b>	<b>0.9776</b>		<b>3,958.652 7</b>	<b>3,958.652 7</b>	<b>0.1453</b>	<b>0.2747</b>	<b>4,044.144 7</b>

The Ritz-Carlton Residences - Orange County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.5 Building Construction - 2025**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4897	12.0233	14.0072	0.0250		0.4700	0.4700		0.4498	0.4498		2,289.8898	2,289.8898	0.4200		2,300.3887
<b>Total</b>	<b>1.4897</b>	<b>12.0233</b>	<b>14.0072</b>	<b>0.0250</b>		<b>0.4700</b>	<b>0.4700</b>		<b>0.4498</b>	<b>0.4498</b>		<b>2,289.8898</b>	<b>2,289.8898</b>	<b>0.4200</b>		<b>2,300.3887</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0737	2.8336	1.1551	0.0135	0.4987	0.0148	0.5136	0.1435	0.0142	0.1577		1,490.1193	1,490.1193	0.0935	0.2158	1,556.7580
Worker	0.7484	0.4382	6.8148	0.0229	3.0403	0.0142	3.0545	0.8063	0.0130	0.8194		2,380.7281	2,380.7281	0.0482	0.0524	2,397.5519
<b>Total</b>	<b>0.8221</b>	<b>3.2719</b>	<b>7.9698</b>	<b>0.0364</b>	<b>3.5391</b>	<b>0.0290</b>	<b>3.5681</b>	<b>0.9498</b>	<b>0.0272</b>	<b>0.9771</b>		<b>3,870.8474</b>	<b>3,870.8474</b>	<b>0.1417</b>	<b>0.2682</b>	<b>3,954.3099</b>

The Ritz-Carlton Residences - Orange County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.5 Building Construction - 2025**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9471	20.0464	15.4081	0.0250		0.8178	0.8178		0.8178	0.8178	0.0000	2,289.8898	2,289.8898	0.4200		2,300.3887
<b>Total</b>	<b>0.9471</b>	<b>20.0464</b>	<b>15.4081</b>	<b>0.0250</b>		<b>0.8178</b>	<b>0.8178</b>		<b>0.8178</b>	<b>0.8178</b>	<b>0.0000</b>	<b>2,289.8898</b>	<b>2,289.8898</b>	<b>0.4200</b>		<b>2,300.3887</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0737	2.8336	1.1551	0.0135	0.4987	0.0148	0.5136	0.1435	0.0142	0.1577		1,490.1193	1,490.1193	0.0935	0.2158	1,556.7580
Worker	0.7484	0.4382	6.8148	0.0229	3.0403	0.0142	3.0545	0.8063	0.0130	0.8194		2,380.7281	2,380.7281	0.0482	0.0524	2,397.5519
<b>Total</b>	<b>0.8221</b>	<b>3.2719</b>	<b>7.9698</b>	<b>0.0364</b>	<b>3.5391</b>	<b>0.0290</b>	<b>3.5681</b>	<b>0.9498</b>	<b>0.0272</b>	<b>0.9771</b>		<b>3,870.8474</b>	<b>3,870.8474</b>	<b>0.1417</b>	<b>0.2682</b>	<b>3,954.3099</b>

The Ritz-Carlton Residences - Orange County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.6 Paving - 2025**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7854	7.4371	11.6737	0.0179		0.3503	0.3503		0.3234	0.3234		1,710.0067	1,710.0067	0.5420		1,723.5556
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.7854</b>	<b>7.4371</b>	<b>11.6737</b>	<b>0.0179</b>		<b>0.3503</b>	<b>0.3503</b>		<b>0.3234</b>	<b>0.3234</b>		<b>1,710.0067</b>	<b>1,710.0067</b>	<b>0.5420</b>		<b>1,723.5556</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0413	0.0242	0.3758	1.2600e-003	0.1677	7.8000e-004	0.1685	0.0445	7.2000e-004	0.0452		131.2902	131.2902	2.6600e-003	2.8900e-003	132.2179
<b>Total</b>	<b>0.0413</b>	<b>0.0242</b>	<b>0.3758</b>	<b>1.2600e-003</b>	<b>0.1677</b>	<b>7.8000e-004</b>	<b>0.1685</b>	<b>0.0445</b>	<b>7.2000e-004</b>	<b>0.0452</b>		<b>131.2902</b>	<b>131.2902</b>	<b>2.6600e-003</b>	<b>2.8900e-003</b>	<b>132.2179</b>

The Ritz-Carlton Residences - Orange County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.6 Paving - 2025**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7344	15.6108	12.9737	0.0179		0.5580	0.5580		0.5580	0.5580	0.0000	1,710.0067	1,710.0067	0.5420		1,723.5556
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.7344</b>	<b>15.6108</b>	<b>12.9737</b>	<b>0.0179</b>		<b>0.5580</b>	<b>0.5580</b>		<b>0.5580</b>	<b>0.5580</b>	<b>0.0000</b>	<b>1,710.0067</b>	<b>1,710.0067</b>	<b>0.5420</b>		<b>1,723.5556</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0413	0.0242	0.3758	1.2600e-003	0.1677	7.8000e-004	0.1685	0.0445	7.2000e-004	0.0452		131.2902	131.2902	2.6600e-003	2.8900e-003	132.2179
<b>Total</b>	<b>0.0413</b>	<b>0.0242</b>	<b>0.3758</b>	<b>1.2600e-003</b>	<b>0.1677</b>	<b>7.8000e-004</b>	<b>0.1685</b>	<b>0.0445</b>	<b>7.2000e-004</b>	<b>0.0452</b>		<b>131.2902</b>	<b>131.2902</b>	<b>2.6600e-003</b>	<b>2.8900e-003</b>	<b>132.2179</b>

The Ritz-Carlton Residences - Orange County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.7 Architectural Coating - 2024**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	7.8284					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
<b>Total</b>	<b>8.0092</b>	<b>1.2188</b>	<b>1.8101</b>	<b>2.9700e-003</b>		<b>0.0609</b>	<b>0.0609</b>		<b>0.0609</b>	<b>0.0609</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0159</b>		<b>281.8443</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1569	0.0960	1.4373	4.7000e-003	0.6036	2.9400e-003	0.6065	0.1601	2.7000e-003	0.1628		484.4423	484.4423	0.0105	0.0111	488.0022
<b>Total</b>	<b>0.1569</b>	<b>0.0960</b>	<b>1.4373</b>	<b>4.7000e-003</b>	<b>0.6036</b>	<b>2.9400e-003</b>	<b>0.6065</b>	<b>0.1601</b>	<b>2.7000e-003</b>	<b>0.1628</b>		<b>484.4423</b>	<b>484.4423</b>	<b>0.0105</b>	<b>0.0111</b>	<b>488.0022</b>

The Ritz-Carlton Residences - Orange County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.7 Architectural Coating - 2024**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	7.8284					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1139	2.3524	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0159		281.8443
<b>Total</b>	<b>7.9423</b>	<b>2.3524</b>	<b>1.8324</b>	<b>2.9700e-003</b>		<b>0.0951</b>	<b>0.0951</b>		<b>0.0951</b>	<b>0.0951</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0159</b>		<b>281.8443</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1569	0.0960	1.4373	4.7000e-003	0.6036	2.9400e-003	0.6065	0.1601	2.7000e-003	0.1628		484.4423	484.4423	0.0105	0.0111	488.0022
<b>Total</b>	<b>0.1569</b>	<b>0.0960</b>	<b>1.4373</b>	<b>4.7000e-003</b>	<b>0.6036</b>	<b>2.9400e-003</b>	<b>0.6065</b>	<b>0.1601</b>	<b>2.7000e-003</b>	<b>0.1628</b>		<b>484.4423</b>	<b>484.4423</b>	<b>0.0105</b>	<b>0.0111</b>	<b>488.0022</b>

The Ritz-Carlton Residences - Orange County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.7 Architectural Coating - 2025**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	7.8284					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
<b>Total</b>	<b>7.9993</b>	<b>1.1455</b>	<b>1.8091</b>	<b>2.9700e-003</b>		<b>0.0515</b>	<b>0.0515</b>		<b>0.0515</b>	<b>0.0515</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0154</b>		<b>281.8319</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1486	0.0870	1.3529	4.5400e-003	0.6036	2.8100e-003	0.6064	0.1601	2.5900e-003	0.1627		472.6446	472.6446	9.5700e-003	0.0104	475.9846
<b>Total</b>	<b>0.1486</b>	<b>0.0870</b>	<b>1.3529</b>	<b>4.5400e-003</b>	<b>0.6036</b>	<b>2.8100e-003</b>	<b>0.6064</b>	<b>0.1601</b>	<b>2.5900e-003</b>	<b>0.1627</b>		<b>472.6446</b>	<b>472.6446</b>	<b>9.5700e-003</b>	<b>0.0104</b>	<b>475.9846</b>



The Ritz-Carlton Residences - Orange County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.7 Architectural Coating - 2025**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	7.8284					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1139	2.3524	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0154		281.8319
<b>Total</b>	<b>7.9423</b>	<b>2.3524</b>	<b>1.8324</b>	<b>2.9700e-003</b>		<b>0.0951</b>	<b>0.0951</b>		<b>0.0951</b>	<b>0.0951</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0154</b>		<b>281.8319</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1486	0.0870	1.3529	4.5400e-003	0.6036	2.8100e-003	0.6064	0.1601	2.5900e-003	0.1627		472.6446	472.6446	9.5700e-003	0.0104	475.9846
<b>Total</b>	<b>0.1486</b>	<b>0.0870</b>	<b>1.3529</b>	<b>4.5400e-003</b>	<b>0.6036</b>	<b>2.8100e-003</b>	<b>0.6064</b>	<b>0.1601</b>	<b>2.5900e-003</b>	<b>0.1627</b>		<b>472.6446</b>	<b>472.6446</b>	<b>9.5700e-003</b>	<b>0.0104</b>	<b>475.9846</b>

The Ritz-Carlton Residences - Orange County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**4.0 Operational Detail - Mobile**

**4.1 Mitigation Measures Mobile**

Increase Density

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.5705	1.5168	14.1235	0.0306	3.5656	0.0219	3.5875	0.9504	0.0204	0.9708		3,198.080 7	3,198.080 7	0.2153	0.1424	3,245.899 3
Unmitigated	1.8860	2.0284	18.9381	0.0442	5.1977	0.0307	5.2284	1.3854	0.0286	1.4140		4,617.768 3	4,617.768 3	0.2784	0.1898	4,681.283 4

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments High Rise	721.86	721.86	721.86	2,466,705	1,692,160
Enclosed Parking with Elevator	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
<b>Total</b>	<b>721.86</b>	<b>721.86</b>	<b>721.86</b>	<b>2,466,705</b>	<b>1,692,160</b>

**4.3 Trip Type Information**

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments High Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

The Ritz-Carlton Residences - Orange County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments High Rise	0.547453	0.060181	0.185039	0.126487	0.024236	0.006679	0.014707	0.004926	0.000662	0.000378	0.024745	0.000705	0.003801
Enclosed Parking with Elevator	0.547453	0.060181	0.185039	0.126487	0.024236	0.006679	0.014707	0.004926	0.000662	0.000378	0.024745	0.000705	0.003801
Other Non-Asphalt Surfaces	0.547453	0.060181	0.185039	0.126487	0.024236	0.006679	0.014707	0.004926	0.000662	0.000378	0.024745	0.000705	0.003801

**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
NaturalGas Mitigated	0.0524	0.4476	0.1905	2.8600e-003		0.0362	0.0362		0.0362	0.0362		571.4068	571.4068	0.0110	0.0105	574.8024
NaturalGas Unmitigated	0.0524	0.4476	0.1905	2.8600e-003		0.0362	0.0362		0.0362	0.0362		571.4068	571.4068	0.0110	0.0105	574.8024

The Ritz-Carlton Residences - Orange County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**5.2 Energy by Land Use - Natural Gas**

**Unmitigated**

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments High Rise	4856.96	0.0524	0.4476	0.1905	2.8600e-003		0.0362	0.0362		0.0362	0.0362		571.4068	571.4068	0.0110	0.0105	574.8024
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0524</b>	<b>0.4476</b>	<b>0.1905</b>	<b>2.8600e-003</b>		<b>0.0362</b>	<b>0.0362</b>		<b>0.0362</b>	<b>0.0362</b>		<b>571.4068</b>	<b>571.4068</b>	<b>0.0110</b>	<b>0.0105</b>	<b>574.8024</b>

The Ritz-Carlton Residences - Orange County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**5.2 Energy by Land Use - NaturalGas**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments High Rise	4.85696	0.0524	0.4476	0.1905	2.8600e-003		0.0362	0.0362		0.0362	0.0362		571.4068	571.4068	0.0110	0.0105	574.8024
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0524</b>	<b>0.4476</b>	<b>0.1905</b>	<b>2.8600e-003</b>		<b>0.0362</b>	<b>0.0362</b>		<b>0.0362</b>	<b>0.0362</b>		<b>571.4068</b>	<b>571.4068</b>	<b>0.0110</b>	<b>0.0105</b>	<b>574.8024</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

Use only Natural Gas Hearths

The Ritz-Carlton Residences - Orange County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	9.7683	2.5255	14.1978	0.0159		0.2649	0.2649		0.2649	0.2649	0.0000	3,054.1499	3,054.1499	0.0812	0.0556	3,072.7347
Unmitigated	51.1543	3.4507	94.0474	0.2070		12.2188	12.2188		12.2188	12.2188	1,489.3400	2,885.7969	4,375.1369	4.4646	0.1011	4,516.8750

**6.2 Area by SubCategory**

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.7400					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	8.3495					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	41.6637	3.2990	80.8597	0.2063		12.1457	12.1457		12.1457	12.1457	1,489.3400	2,862.0000	4,351.3400	4.4415	0.1011	4,492.5011
Landscaping	0.4011	0.1517	13.1877	7.0000e-004		0.0730	0.0730		0.0730	0.0730		23.7969	23.7969	0.0231		24.3739
<b>Total</b>	<b>51.1543</b>	<b>3.4507</b>	<b>94.0474</b>	<b>0.2070</b>		<b>12.2188</b>	<b>12.2188</b>		<b>12.2188</b>	<b>12.2188</b>	<b>1,489.3400</b>	<b>2,885.7969</b>	<b>4,375.1369</b>	<b>4.4646</b>	<b>0.1011</b>	<b>4,516.8750</b>

The Ritz-Carlton Residences - Orange County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.7400					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	8.3495					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.2778	2.3738	1.0101	0.0152		0.1919	0.1919		0.1919	0.1919	0.0000	3,030.3529	3,030.3529	0.0581	0.0556	3,048.3608
Landscaping	0.4011	0.1517	13.1877	7.0000e-004		0.0730	0.0730		0.0730	0.0730		23.7969	23.7969	0.0231		24.3739
<b>Total</b>	<b>9.7683</b>	<b>2.5255</b>	<b>14.1978</b>	<b>0.0159</b>		<b>0.2649</b>	<b>0.2649</b>		<b>0.2649</b>	<b>0.2649</b>	<b>0.0000</b>	<b>3,054.1498</b>	<b>3,054.1498</b>	<b>0.0812</b>	<b>0.0556</b>	<b>3,072.7347</b>

**7.0 Water Detail**

**7.1 Mitigation Measures Water**

Use Water Efficient Irrigation System

**8.0 Waste Detail**

**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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The Ritz-Carlton Residences - Orange County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**10.0 Stationary Equipment**

**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	1	0.13	50	350	0.73	Diesel

**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**10.1 Stationary Sources**

**Unmitigated/Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Emergency Generator - Diesel (300 - 600 HP)	0.0747	0.2087	0.1904	3.6000e-004		0.0110	0.0110		0.0110	0.0110		38.1979	38.1979	5.3600e-003		38.3318
<b>Total</b>	<b>0.0747</b>	<b>0.2087</b>	<b>0.1904</b>	<b>3.6000e-004</b>		<b>0.0110</b>	<b>0.0110</b>		<b>0.0110</b>	<b>0.0110</b>		<b>38.1979</b>	<b>38.1979</b>	<b>5.3600e-003</b>		<b>38.3318</b>

**11.0 Vegetation**



The Ritz-Carlton Residences - Existing Uses - Orange County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**The Ritz-Carlton Residences - Existing Uses  
Orange County, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Hotel	159.00	Room	1.33	63,048.00	0
Enclosed Parking with Elevator	612.00	Space	0.52	159,846.00	0
Other Non-Asphalt Surfaces	0.93	Acre	0.93	40,300.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	30
<b>Climate Zone</b>	8			<b>Operational Year</b>	2025
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MWhr)</b>	390.98	<b>CH4 Intensity (lb/MWhr)</b>	0.033	<b>N2O Intensity (lb/MWhr)</b>	0.004

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics -

Land Use - Based on the Project Description provided to LSA on January 21, 2022. Other non-asphalt surfaces includes hardscape.

Construction Phase - Operational run only.

Vehicle Trips - Trip rates based on the average daily trip generation provided in the project's Trip Generation letter dated January 26, 2022.

Energy Use - Using historical data.

Table Name	Column Name	Default Value	New Value
tblEnergyUse	LightingElect	2.63	2.63
tblEnergyUse	T24E	3.92	3.92
tblLandUse	LandUseSquareFeet	230,868.00	63,048.00

The Ritz-Carlton Residences - Existing Uses - Orange County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

tblLandUse	LandUseSquareFeet	244,800.00	159,846.00
tblLandUse	LandUseSquareFeet	40,510.80	40,300.00
tblLandUse	LotAcreage	5.30	1.33
tblLandUse	LotAcreage	5.51	0.52
tblVehicleTrips	ST_TR	8.19	7.99
tblVehicleTrips	SU_TR	5.95	7.99
tblVehicleTrips	WD_TR	8.36	7.99

**2.0 Emissions Summary**

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The Ritz-Carlton Residences - Existing Uses - Orange County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**2.1 Overall Construction**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.1643	1.2874	1.3364	3.0600e-003	0.1179	0.0566	0.1745	0.0359	0.0539	0.0899	0.0000	269.8612	269.8612	0.0374	8.7200e-003	273.3954
2023	0.4253	0.7904	0.9410	2.1800e-003	0.0735	0.0327	0.1062	0.0198	0.0312	0.0511	0.0000	192.3166	192.3166	0.0247	6.4200e-003	194.8473
<b>Maximum</b>	<b>0.4253</b>	<b>1.2874</b>	<b>1.3364</b>	<b>3.0600e-003</b>	<b>0.1179</b>	<b>0.0566</b>	<b>0.1745</b>	<b>0.0359</b>	<b>0.0539</b>	<b>0.0899</b>	<b>0.0000</b>	<b>269.8612</b>	<b>269.8612</b>	<b>0.0374</b>	<b>8.7200e-003</b>	<b>273.3954</b>

**Mitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.1643	1.2874	1.3364	3.0600e-003	0.1179	0.0566	0.1745	0.0359	0.0539	0.0899	0.0000	269.8610	269.8610	0.0374	8.7200e-003	273.3952
2023	0.4253	0.7904	0.9410	2.1800e-003	0.0735	0.0327	0.1062	0.0198	0.0312	0.0511	0.0000	192.3165	192.3165	0.0247	6.4200e-003	194.8472
<b>Maximum</b>	<b>0.4253</b>	<b>1.2874</b>	<b>1.3364</b>	<b>3.0600e-003</b>	<b>0.1179</b>	<b>0.0566</b>	<b>0.1745</b>	<b>0.0359</b>	<b>0.0539</b>	<b>0.0899</b>	<b>0.0000</b>	<b>269.8610</b>	<b>269.8610</b>	<b>0.0374</b>	<b>8.7200e-003</b>	<b>273.3952</b>

The Ritz-Carlton Residences - Existing Uses - Orange County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	6-1-2022	8-31-2022	0.6148	0.6148
2	9-1-2022	11-30-2022	0.6209	0.6209
3	12-1-2022	2-28-2023	0.5810	0.5810
4	3-1-2023	5-31-2023	0.5682	0.5682
5	6-1-2023	8-31-2023	0.2812	0.2812
		Highest	0.6209	0.6209

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.2737	9.0000e-005	9.8300e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0192	0.0192	5.0000e-005	0.0000	0.0204
Energy	0.0123	0.1120	0.0941	6.7000e-004		8.5100e-003	8.5100e-003		8.5100e-003	8.5100e-003	0.0000	431.3749	431.3749	0.0285	5.4000e-003	433.6959
Mobile	0.4942	0.4980	4.6015	0.0101	1.1420	7.1200e-003	1.1491	0.3048	6.6100e-003	0.3114	0.0000	954.2809	954.2809	0.0628	0.0421	968.3871
Waste						0.0000	0.0000		0.0000	0.0000	17.6704	0.0000	17.6704	1.0443	0.0000	43.7776
Water						0.0000	0.0000		0.0000	0.0000	1.2796	10.1968	11.4764	0.1323	3.2100e-003	15.7394
<b>Total</b>	<b>0.7802</b>	<b>0.6101</b>	<b>4.7054</b>	<b>0.0107</b>	<b>1.1420</b>	<b>0.0157</b>	<b>1.1576</b>	<b>0.3048</b>	<b>0.0152</b>	<b>0.3200</b>	<b>18.9500</b>	<b>1,395.8718</b>	<b>1,414.8217</b>	<b>1.2679</b>	<b>0.0507</b>	<b>1,461.6203</b>

The Ritz-Carlton Residences - Existing Uses - Orange County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**2.2 Overall Operational**

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.2737	9.0000e-005	9.8300e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0192	0.0192	5.0000e-005	0.0000	0.0204
Energy	0.0123	0.1120	0.0941	6.7000e-004		8.5100e-003	8.5100e-003		8.5100e-003	8.5100e-003	0.0000	431.3749	431.3749	0.0285	5.4000e-003	433.6959
Mobile	0.4942	0.4980	4.6015	0.0101	1.1420	7.1200e-003	1.1491	0.3048	6.6100e-003	0.3114	0.0000	954.2809	954.2809	0.0628	0.0421	968.3871
Waste						0.0000	0.0000		0.0000	0.0000	17.6704	0.0000	17.6704	1.0443	0.0000	43.7776
Water						0.0000	0.0000		0.0000	0.0000	1.2796	10.1968	11.4764	0.1323	3.2100e-003	15.7394
<b>Total</b>	<b>0.7802</b>	<b>0.6101</b>	<b>4.7054</b>	<b>0.0107</b>	<b>1.1420</b>	<b>0.0157</b>	<b>1.1576</b>	<b>0.3048</b>	<b>0.0152</b>	<b>0.3200</b>	<b>18.9500</b>	<b>1,395.8718</b>	<b>1,414.8217</b>	<b>1.2679</b>	<b>0.0507</b>	<b>1,461.6203</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

**3.0 Construction Detail**

**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/1/2022	6/28/2022	5	20	
2	Site Preparation	Site Preparation	6/29/2022	7/1/2022	5	3	
3	Grading	Grading	7/2/2022	7/11/2022	5	6	

The Ritz-Carlton Residences - Existing Uses - Orange County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

4	Building Construction	Building Construction	7/12/2022	5/15/2023	5	220
5	Paving	Paving	5/16/2023	5/29/2023	5	10
6	Architectural Coating	Architectural Coating	5/30/2023	6/12/2023	5	10

**Acres of Grading (Site Preparation Phase): 4.5**

**Acres of Grading (Grading Phase): 6**

**Acres of Paving: 1.45**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 94,572; Non-Residential Outdoor: 31,524; Striped Parking Area: 12,009 (Architectural Coating – sqft)**

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Scrapers	1	8.00	367	0.48
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37

The Ritz-Carlton Residences - Existing Uses - Orange County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	111.00	43.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	22.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

**3.2 Demolition - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0169	0.1662	0.1396	2.4000e-004		8.3800e-003	8.3800e-003		7.8300e-003	7.8300e-003	0.0000	21.0777	21.0777	5.3700e-003	0.0000	21.2120
<b>Total</b>	<b>0.0169</b>	<b>0.1662</b>	<b>0.1396</b>	<b>2.4000e-004</b>		<b>8.3800e-003</b>	<b>8.3800e-003</b>		<b>7.8300e-003</b>	<b>7.8300e-003</b>	<b>0.0000</b>	<b>21.0777</b>	<b>21.0777</b>	<b>5.3700e-003</b>	<b>0.0000</b>	<b>21.2120</b>

The Ritz-Carlton Residences - Existing Uses - Orange County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.2 Demolition - 2022**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.9000e-004	2.9000e-004	4.0700e-003	1.0000e-005	1.4300e-003	1.0000e-005	1.4300e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.1279	1.1279	3.0000e-005	3.0000e-005	1.1370
<b>Total</b>	<b>3.9000e-004</b>	<b>2.9000e-004</b>	<b>4.0700e-003</b>	<b>1.0000e-005</b>	<b>1.4300e-003</b>	<b>1.0000e-005</b>	<b>1.4300e-003</b>	<b>3.8000e-004</b>	<b>1.0000e-005</b>	<b>3.9000e-004</b>	<b>0.0000</b>	<b>1.1279</b>	<b>1.1279</b>	<b>3.0000e-005</b>	<b>3.0000e-005</b>	<b>1.1370</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0169	0.1662	0.1396	2.4000e-004		8.3800e-003	8.3800e-003		7.8300e-003	7.8300e-003	0.0000	21.0777	21.0777	5.3700e-003	0.0000	21.2119
<b>Total</b>	<b>0.0169</b>	<b>0.1662</b>	<b>0.1396</b>	<b>2.4000e-004</b>		<b>8.3800e-003</b>	<b>8.3800e-003</b>		<b>7.8300e-003</b>	<b>7.8300e-003</b>	<b>0.0000</b>	<b>21.0777</b>	<b>21.0777</b>	<b>5.3700e-003</b>	<b>0.0000</b>	<b>21.2119</b>



The Ritz-Carlton Residences - Existing Uses - Orange County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.2 Demolition - 2022**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.9000e-004	2.9000e-004	4.0700e-003	1.0000e-005	1.4300e-003	1.0000e-005	1.4300e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.1279	1.1279	3.0000e-005	3.0000e-005	1.1370
<b>Total</b>	<b>3.9000e-004</b>	<b>2.9000e-004</b>	<b>4.0700e-003</b>	<b>1.0000e-005</b>	<b>1.4300e-003</b>	<b>1.0000e-005</b>	<b>1.4300e-003</b>	<b>3.8000e-004</b>	<b>1.0000e-005</b>	<b>3.9000e-004</b>	<b>0.0000</b>	<b>1.1279</b>	<b>1.1279</b>	<b>3.0000e-005</b>	<b>3.0000e-005</b>	<b>1.1370</b>

**3.3 Site Preparation - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.3900e-003	0.0000	2.3900e-003	2.6000e-004	0.0000	2.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0700e-003	0.0235	0.0151	4.0000e-005		8.9000e-004	8.9000e-004		8.2000e-004	8.2000e-004	0.0000	3.2321	3.2321	1.0500e-003	0.0000	3.2582
<b>Total</b>	<b>2.0700e-003</b>	<b>0.0235</b>	<b>0.0151</b>	<b>4.0000e-005</b>	<b>2.3900e-003</b>	<b>8.9000e-004</b>	<b>3.2800e-003</b>	<b>2.6000e-004</b>	<b>8.2000e-004</b>	<b>1.0800e-003</b>	<b>0.0000</b>	<b>3.2321</b>	<b>3.2321</b>	<b>1.0500e-003</b>	<b>0.0000</b>	<b>3.2582</b>

The Ritz-Carlton Residences - Existing Uses - Orange County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.3 Site Preparation - 2022**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	3.0000e-005	3.8000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	3.0000e-005	0.0000	4.0000e-005	0.0000	0.1041	0.1041	0.0000	0.0000	0.1050
<b>Total</b>	<b>4.0000e-005</b>	<b>3.0000e-005</b>	<b>3.8000e-004</b>	<b>0.0000</b>	<b>1.3000e-004</b>	<b>0.0000</b>	<b>1.3000e-004</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>0.1041</b>	<b>0.1041</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.1050</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.3900e-003	0.0000	2.3900e-003	2.6000e-004	0.0000	2.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0700e-003	0.0235	0.0151	4.0000e-005		8.9000e-004	8.9000e-004		8.2000e-004	8.2000e-004	0.0000	3.2321	3.2321	1.0500e-003	0.0000	3.2582
<b>Total</b>	<b>2.0700e-003</b>	<b>0.0235</b>	<b>0.0151</b>	<b>4.0000e-005</b>	<b>2.3900e-003</b>	<b>8.9000e-004</b>	<b>3.2800e-003</b>	<b>2.6000e-004</b>	<b>8.2000e-004</b>	<b>1.0800e-003</b>	<b>0.0000</b>	<b>3.2321</b>	<b>3.2321</b>	<b>1.0500e-003</b>	<b>0.0000</b>	<b>3.2582</b>

The Ritz-Carlton Residences - Existing Uses - Orange County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.3 Site Preparation - 2022**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	3.0000e-005	3.8000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	3.0000e-005	0.0000	4.0000e-005	0.0000	0.1041	0.1041	0.0000	0.0000	0.1050
<b>Total</b>	<b>4.0000e-005</b>	<b>3.0000e-005</b>	<b>3.8000e-004</b>	<b>0.0000</b>	<b>1.3000e-004</b>	<b>0.0000</b>	<b>1.3000e-004</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>0.1041</b>	<b>0.1041</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.1050</b>

**3.4 Grading - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0213	0.0000	0.0213	0.0103	0.0000	0.0103	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.6200e-003	0.0510	0.0277	6.0000e-005		2.2300e-003	2.2300e-003		2.0500e-003	2.0500e-003	0.0000	5.4308	5.4308	1.7600e-003	0.0000	5.4747
<b>Total</b>	<b>4.6200e-003</b>	<b>0.0510</b>	<b>0.0277</b>	<b>6.0000e-005</b>	<b>0.0213</b>	<b>2.2300e-003</b>	<b>0.0235</b>	<b>0.0103</b>	<b>2.0500e-003</b>	<b>0.0123</b>	<b>0.0000</b>	<b>5.4308</b>	<b>5.4308</b>	<b>1.7600e-003</b>	<b>0.0000</b>	<b>5.4747</b>

The Ritz-Carlton Residences - Existing Uses - Orange County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.4 Grading - 2022**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.0000e-005	7.0000e-005	9.4000e-004	0.0000	3.3000e-004	0.0000	3.3000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.2603	0.2603	1.0000e-005	1.0000e-005	0.2624
<b>Total</b>	<b>9.0000e-005</b>	<b>7.0000e-005</b>	<b>9.4000e-004</b>	<b>0.0000</b>	<b>3.3000e-004</b>	<b>0.0000</b>	<b>3.3000e-004</b>	<b>9.0000e-005</b>	<b>0.0000</b>	<b>9.0000e-005</b>	<b>0.0000</b>	<b>0.2603</b>	<b>0.2603</b>	<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>0.2624</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0213	0.0000	0.0213	0.0103	0.0000	0.0103	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.6200e-003	0.0510	0.0277	6.0000e-005		2.2300e-003	2.2300e-003		2.0500e-003	2.0500e-003	0.0000	5.4308	5.4308	1.7600e-003	0.0000	5.4747
<b>Total</b>	<b>4.6200e-003</b>	<b>0.0510</b>	<b>0.0277</b>	<b>6.0000e-005</b>	<b>0.0213</b>	<b>2.2300e-003</b>	<b>0.0235</b>	<b>0.0103</b>	<b>2.0500e-003</b>	<b>0.0123</b>	<b>0.0000</b>	<b>5.4308</b>	<b>5.4308</b>	<b>1.7600e-003</b>	<b>0.0000</b>	<b>5.4747</b>

The Ritz-Carlton Residences - Existing Uses - Orange County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.4 Grading - 2022**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.0000e-005	7.0000e-005	9.4000e-004	0.0000	3.3000e-004	0.0000	3.3000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.2603	0.2603	1.0000e-005	1.0000e-005	0.2624
<b>Total</b>	<b>9.0000e-005</b>	<b>7.0000e-005</b>	<b>9.4000e-004</b>	<b>0.0000</b>	<b>3.3000e-004</b>	<b>0.0000</b>	<b>3.3000e-004</b>	<b>9.0000e-005</b>	<b>0.0000</b>	<b>9.0000e-005</b>	<b>0.0000</b>	<b>0.2603</b>	<b>0.2603</b>	<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>0.2624</b>

**3.5 Building Construction - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1150	0.9055	0.8899	1.5500e-003		0.0435	0.0435		0.0417	0.0417	0.0000	128.7617	128.7617	0.0248	0.0000	129.3827
<b>Total</b>	<b>0.1150</b>	<b>0.9055</b>	<b>0.8899</b>	<b>1.5500e-003</b>		<b>0.0435</b>	<b>0.0435</b>		<b>0.0417</b>	<b>0.0417</b>	<b>0.0000</b>	<b>128.7617</b>	<b>128.7617</b>	<b>0.0248</b>	<b>0.0000</b>	<b>129.3827</b>

The Ritz-Carlton Residences - Existing Uses - Orange County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.5 Building Construction - 2022**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.4000e-003	0.1253	0.0432	5.0000e-004	0.0168	1.1700e-003	0.0180	4.8500e-003	1.1100e-003	5.9600e-003	0.0000	50.1573	50.1573	2.8700e-003	7.1900e-003	52.3727
Worker	0.0207	0.0156	0.2156	6.5000e-004	0.0756	4.2000e-004	0.0760	0.0201	3.8000e-004	0.0205	0.0000	59.7094	59.7094	1.4800e-003	1.4900e-003	60.1908
<b>Total</b>	<b>0.0251</b>	<b>0.1409</b>	<b>0.2587</b>	<b>1.1500e-003</b>	<b>0.0924</b>	<b>1.5900e-003</b>	<b>0.0939</b>	<b>0.0249</b>	<b>1.4900e-003</b>	<b>0.0264</b>	<b>0.0000</b>	<b>109.8667</b>	<b>109.8667</b>	<b>4.3500e-003</b>	<b>8.6800e-003</b>	<b>112.5635</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1150	0.9055	0.8899	1.5500e-003		0.0435	0.0435		0.0417	0.0417	0.0000	128.7615	128.7615	0.0248	0.0000	129.3826
<b>Total</b>	<b>0.1150</b>	<b>0.9055</b>	<b>0.8899</b>	<b>1.5500e-003</b>		<b>0.0435</b>	<b>0.0435</b>		<b>0.0417</b>	<b>0.0417</b>	<b>0.0000</b>	<b>128.7615</b>	<b>128.7615</b>	<b>0.0248</b>	<b>0.0000</b>	<b>129.3826</b>

The Ritz-Carlton Residences - Existing Uses - Orange County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.5 Building Construction - 2022**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.4000e-003	0.1253	0.0432	5.0000e-004	0.0168	1.1700e-003	0.0180	4.8500e-003	1.1100e-003	5.9600e-003	0.0000	50.1573	50.1573	2.8700e-003	7.1900e-003	52.3727
Worker	0.0207	0.0156	0.2156	6.5000e-004	0.0756	4.2000e-004	0.0760	0.0201	3.8000e-004	0.0205	0.0000	59.7094	59.7094	1.4800e-003	1.4900e-003	60.1908
<b>Total</b>	<b>0.0251</b>	<b>0.1409</b>	<b>0.2587</b>	<b>1.1500e-003</b>	<b>0.0924</b>	<b>1.5900e-003</b>	<b>0.0939</b>	<b>0.0249</b>	<b>1.4900e-003</b>	<b>0.0264</b>	<b>0.0000</b>	<b>109.8667</b>	<b>109.8667</b>	<b>4.3500e-003</b>	<b>8.6800e-003</b>	<b>112.5635</b>

**3.5 Building Construction - 2023**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0823	0.6540	0.6823	1.2000e-003		0.0295	0.0295		0.0282	0.0282	0.0000	99.6970	99.6970	0.0189	0.0000	100.1683
<b>Total</b>	<b>0.0823</b>	<b>0.6540</b>	<b>0.6823</b>	<b>1.2000e-003</b>		<b>0.0295</b>	<b>0.0295</b>		<b>0.0282</b>	<b>0.0282</b>	<b>0.0000</b>	<b>99.6970</b>	<b>99.6970</b>	<b>0.0189</b>	<b>0.0000</b>	<b>100.1683</b>

The Ritz-Carlton Residences - Existing Uses - Orange County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.5 Building Construction - 2023**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0500e-003	0.0758	0.0304	3.7000e-004	0.0130	3.7000e-004	0.0134	3.7500e-003	3.6000e-004	4.1100e-003	0.0000	36.9939	36.9939	2.2000e-003	5.3100e-003	38.6319
Worker	0.0151	0.0108	0.1554	4.8000e-004	0.0585	3.0000e-004	0.0588	0.0155	2.8000e-004	0.0158	0.0000	45.0292	45.0292	1.0400e-003	1.0700e-003	45.3752
<b>Total</b>	<b>0.0171</b>	<b>0.0865</b>	<b>0.1859</b>	<b>8.5000e-004</b>	<b>0.0715</b>	<b>6.7000e-004</b>	<b>0.0722</b>	<b>0.0193</b>	<b>6.4000e-004</b>	<b>0.0199</b>	<b>0.0000</b>	<b>82.0231</b>	<b>82.0231</b>	<b>3.2400e-003</b>	<b>6.3800e-003</b>	<b>84.0070</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0823	0.6540	0.6823	1.2000e-003		0.0295	0.0295		0.0282	0.0282	0.0000	99.6969	99.6969	0.0189	0.0000	100.1682
<b>Total</b>	<b>0.0823</b>	<b>0.6540</b>	<b>0.6823</b>	<b>1.2000e-003</b>		<b>0.0295</b>	<b>0.0295</b>		<b>0.0282</b>	<b>0.0282</b>	<b>0.0000</b>	<b>99.6969</b>	<b>99.6969</b>	<b>0.0189</b>	<b>0.0000</b>	<b>100.1682</b>



The Ritz-Carlton Residences - Existing Uses - Orange County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.5 Building Construction - 2023**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0500e-003	0.0758	0.0304	3.7000e-004	0.0130	3.7000e-004	0.0134	3.7500e-003	3.6000e-004	4.1100e-003	0.0000	36.9939	36.9939	2.2000e-003	5.3100e-003	38.6319
Worker	0.0151	0.0108	0.1554	4.8000e-004	0.0585	3.0000e-004	0.0588	0.0155	2.8000e-004	0.0158	0.0000	45.0292	45.0292	1.0400e-003	1.0700e-003	45.3752
<b>Total</b>	<b>0.0171</b>	<b>0.0865</b>	<b>0.1859</b>	<b>8.5000e-004</b>	<b>0.0715</b>	<b>6.7000e-004</b>	<b>0.0722</b>	<b>0.0193</b>	<b>6.4000e-004</b>	<b>0.0199</b>	<b>0.0000</b>	<b>82.0231</b>	<b>82.0231</b>	<b>3.2400e-003</b>	<b>6.3800e-003</b>	<b>84.0070</b>

**3.6 Paving - 2023**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.4000e-003	0.0431	0.0584	9.0000e-005		2.1700e-003	2.1700e-003		2.0000e-003	2.0000e-003	0.0000	7.7564	7.7564	2.4600e-003	0.0000	7.8179
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>4.4000e-003</b>	<b>0.0431</b>	<b>0.0584</b>	<b>9.0000e-005</b>		<b>2.1700e-003</b>	<b>2.1700e-003</b>		<b>2.0000e-003</b>	<b>2.0000e-003</b>	<b>0.0000</b>	<b>7.7564</b>	<b>7.7564</b>	<b>2.4600e-003</b>	<b>0.0000</b>	<b>7.8179</b>

The Ritz-Carlton Residences - Existing Uses - Orange County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.6 Paving - 2023**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1000e-004	1.5000e-004	2.1900e-003	1.0000e-005	8.2000e-004	0.0000	8.3000e-004	2.2000e-004	0.0000	2.2000e-004	0.0000	0.6339	0.6339	1.0000e-005	2.0000e-005	0.6387
<b>Total</b>	<b>2.1000e-004</b>	<b>1.5000e-004</b>	<b>2.1900e-003</b>	<b>1.0000e-005</b>	<b>8.2000e-004</b>	<b>0.0000</b>	<b>8.3000e-004</b>	<b>2.2000e-004</b>	<b>0.0000</b>	<b>2.2000e-004</b>	<b>0.0000</b>	<b>0.6339</b>	<b>0.6339</b>	<b>1.0000e-005</b>	<b>2.0000e-005</b>	<b>0.6387</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.4000e-003	0.0431	0.0584	9.0000e-005		2.1700e-003	2.1700e-003		2.0000e-003	2.0000e-003	0.0000	7.7564	7.7564	2.4600e-003	0.0000	7.8178
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>4.4000e-003</b>	<b>0.0431</b>	<b>0.0584</b>	<b>9.0000e-005</b>		<b>2.1700e-003</b>	<b>2.1700e-003</b>		<b>2.0000e-003</b>	<b>2.0000e-003</b>	<b>0.0000</b>	<b>7.7564</b>	<b>7.7564</b>	<b>2.4600e-003</b>	<b>0.0000</b>	<b>7.8178</b>

The Ritz-Carlton Residences - Existing Uses - Orange County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.6 Paving - 2023**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1000e-004	1.5000e-004	2.1900e-003	1.0000e-005	8.2000e-004	0.0000	8.3000e-004	2.2000e-004	0.0000	2.2000e-004	0.0000	0.6339	0.6339	1.0000e-005	2.0000e-005	0.6387
<b>Total</b>	<b>2.1000e-004</b>	<b>1.5000e-004</b>	<b>2.1900e-003</b>	<b>1.0000e-005</b>	<b>8.2000e-004</b>	<b>0.0000</b>	<b>8.3000e-004</b>	<b>2.2000e-004</b>	<b>0.0000</b>	<b>2.2000e-004</b>	<b>0.0000</b>	<b>0.6339</b>	<b>0.6339</b>	<b>1.0000e-005</b>	<b>2.0000e-005</b>	<b>0.6387</b>

**3.7 Architectural Coating - 2023**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.3201					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.6000e-004	6.5100e-003	9.0600e-003	1.0000e-005		3.5000e-004	3.5000e-004		3.5000e-004	3.5000e-004	0.0000	1.2766	1.2766	8.0000e-005	0.0000	1.2785
<b>Total</b>	<b>0.3210</b>	<b>6.5100e-003</b>	<b>9.0600e-003</b>	<b>1.0000e-005</b>		<b>3.5000e-004</b>	<b>3.5000e-004</b>		<b>3.5000e-004</b>	<b>3.5000e-004</b>	<b>0.0000</b>	<b>1.2766</b>	<b>1.2766</b>	<b>8.0000e-005</b>	<b>0.0000</b>	<b>1.2785</b>

The Ritz-Carlton Residences - Existing Uses - Orange County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.7 Architectural Coating - 2023**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.1000e-004	2.2000e-004	3.2100e-003	1.0000e-005	1.2100e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	0.9297	0.9297	2.0000e-005	2.0000e-005	0.9368
<b>Total</b>	<b>3.1000e-004</b>	<b>2.2000e-004</b>	<b>3.2100e-003</b>	<b>1.0000e-005</b>	<b>1.2100e-003</b>	<b>1.0000e-005</b>	<b>1.2100e-003</b>	<b>3.2000e-004</b>	<b>1.0000e-005</b>	<b>3.3000e-004</b>	<b>0.0000</b>	<b>0.9297</b>	<b>0.9297</b>	<b>2.0000e-005</b>	<b>2.0000e-005</b>	<b>0.9368</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.3201					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.6000e-004	6.5100e-003	9.0600e-003	1.0000e-005		3.5000e-004	3.5000e-004		3.5000e-004	3.5000e-004	0.0000	1.2766	1.2766	8.0000e-005	0.0000	1.2785
<b>Total</b>	<b>0.3210</b>	<b>6.5100e-003</b>	<b>9.0600e-003</b>	<b>1.0000e-005</b>		<b>3.5000e-004</b>	<b>3.5000e-004</b>		<b>3.5000e-004</b>	<b>3.5000e-004</b>	<b>0.0000</b>	<b>1.2766</b>	<b>1.2766</b>	<b>8.0000e-005</b>	<b>0.0000</b>	<b>1.2785</b>

The Ritz-Carlton Residences - Existing Uses - Orange County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.7 Architectural Coating - 2023**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.1000e-004	2.2000e-004	3.2100e-003	1.0000e-005	1.2100e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	0.9297	0.9297	2.0000e-005	2.0000e-005	0.9368
<b>Total</b>	<b>3.1000e-004</b>	<b>2.2000e-004</b>	<b>3.2100e-003</b>	<b>1.0000e-005</b>	<b>1.2100e-003</b>	<b>1.0000e-005</b>	<b>1.2100e-003</b>	<b>3.2000e-004</b>	<b>1.0000e-005</b>	<b>3.3000e-004</b>	<b>0.0000</b>	<b>0.9297</b>	<b>0.9297</b>	<b>2.0000e-005</b>	<b>2.0000e-005</b>	<b>0.9368</b>

**4.0 Operational Detail - Mobile**

**4.1 Mitigation Measures Mobile**

The Ritz-Carlton Residences - Existing Uses - Orange County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.4942	0.4980	4.6015	0.0101	1.1420	7.1200e-003	1.1491	0.3048	6.6100e-003	0.3114	0.0000	954.2809	954.2809	0.0628	0.0421	968.3871
Unmitigated	0.4942	0.4980	4.6015	0.0101	1.1420	7.1200e-003	1.1491	0.3048	6.6100e-003	0.3114	0.0000	954.2809	954.2809	0.0628	0.0421	968.3871

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Enclosed Parking with Elevator	0.00	0.00	0.00		
Hotel	1,270.41	1,270.41	1,270.41	3,031,416	3,031,416
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
<b>Total</b>	<b>1,270.41</b>	<b>1,270.41</b>	<b>1,270.41</b>	<b>3,031,416</b>	<b>3,031,416</b>

**4.3 Trip Type Information**

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Enclosed Parking with Elevator	0.547453	0.060181	0.185039	0.126487	0.024236	0.006679	0.014707	0.004926	0.000662	0.000378	0.024745	0.000705	0.003801
Hotel	0.547453	0.060181	0.185039	0.126487	0.024236	0.006679	0.014707	0.004926	0.000662	0.000378	0.024745	0.000705	0.003801

The Ritz-Carlton Residences - Existing Uses - Orange County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

Other Non-Asphalt Surfaces	0.547453	0.060181	0.185039	0.126487	0.024236	0.006679	0.014707	0.004926	0.000662	0.000378	0.024745	0.000705	0.003801
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**5.0 Energy Detail**

Historical Energy Use: Y

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	309.4461	309.4461	0.0261	3.1700e-003	311.0425
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	309.4461	309.4461	0.0261	3.1700e-003	311.0425
NaturalGas Mitigated	0.0123	0.1120	0.0941	6.7000e-004		8.5100e-003	8.5100e-003		8.5100e-003	8.5100e-003	0.0000	121.9288	121.9288	2.3400e-003	2.2400e-003	122.6534
NaturalGas Unmitigated	0.0123	0.1120	0.0941	6.7000e-004		8.5100e-003	8.5100e-003		8.5100e-003	8.5100e-003	0.0000	121.9288	121.9288	2.3400e-003	2.2400e-003	122.6534

The Ritz-Carlton Residences - Existing Uses - Orange County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**5.2 Energy by Land Use - Natural Gas**

**Unmitigated**

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hotel	2.28486e+006	0.0123	0.1120	0.0941	6.7000e-004		8.5100e-003	8.5100e-003		8.5100e-003	8.5100e-003	0.0000	121.9288	121.9288	2.3400e-003	2.2400e-003	122.6534
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0123</b>	<b>0.1120</b>	<b>0.0941</b>	<b>6.7000e-004</b>		<b>8.5100e-003</b>	<b>8.5100e-003</b>		<b>8.5100e-003</b>	<b>8.5100e-003</b>	<b>0.0000</b>	<b>121.9288</b>	<b>121.9288</b>	<b>2.3400e-003</b>	<b>2.2400e-003</b>	<b>122.6534</b>



The Ritz-Carlton Residences - Existing Uses - Orange County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**5.2 Energy by Land Use - Natural Gas**

Mitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hotel	2.28486e+006	0.0123	0.1120	0.0941	6.7000e-004		8.5100e-003	8.5100e-003		8.5100e-003	8.5100e-003	0.0000	121.9288	121.9288	2.3400e-003	2.2400e-003	122.6534
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0123</b>	<b>0.1120</b>	<b>0.0941</b>	<b>6.7000e-004</b>		<b>8.5100e-003</b>	<b>8.5100e-003</b>		<b>8.5100e-003</b>	<b>8.5100e-003</b>	<b>0.0000</b>	<b>121.9288</b>	<b>121.9288</b>	<b>2.3400e-003</b>	<b>2.2400e-003</b>	<b>122.6534</b>

The Ritz-Carlton Residences - Existing Uses - Orange County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**5.3 Energy by Land Use - Electricity**

**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Enclosed Parking with Elevator	1.0772e+006	191.0363	0.0161	1.9500e-003	192.0219
Hotel	667678	118.4098	9.9900e-003	1.2100e-003	119.0206
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>309.4461</b>	<b>0.0261</b>	<b>3.1600e-003</b>	<b>311.0425</b>

The Ritz-Carlton Residences - Existing Uses - Orange County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**5.3 Energy by Land Use - Electricity**

**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Enclosed Parking with Elevator	1.0772e+006	191.0363	0.0161	1.9500e-003	192.0219
Hotel	667678	118.4098	9.9900e-003	1.2100e-003	119.0206
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>309.4461</b>	<b>0.0261</b>	<b>3.1600e-003</b>	<b>311.0425</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

The Ritz-Carlton Residences - Existing Uses - Orange County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.2737	9.0000e-005	9.8300e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0192	0.0192	5.0000e-005	0.0000	0.0204
Unmitigated	0.2737	9.0000e-005	9.8300e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0192	0.0192	5.0000e-005	0.0000	0.0204

**6.2 Area by SubCategory**

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0320					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2408					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	9.0000e-004	9.0000e-005	9.8300e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0192	0.0192	5.0000e-005	0.0000	0.0204
<b>Total</b>	<b>0.2737</b>	<b>9.0000e-005</b>	<b>9.8300e-003</b>	<b>0.0000</b>		<b>3.0000e-005</b>	<b>3.0000e-005</b>		<b>3.0000e-005</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.0192</b>	<b>0.0192</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>0.0204</b>

The Ritz-Carlton Residences - Existing Uses - Orange County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0320					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2408					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	9.0000e-004	9.0000e-005	9.8300e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0192	0.0192	5.0000e-005	0.0000	0.0204
<b>Total</b>	<b>0.2737</b>	<b>9.0000e-005</b>	<b>9.8300e-003</b>	<b>0.0000</b>		<b>3.0000e-005</b>	<b>3.0000e-005</b>		<b>3.0000e-005</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.0192</b>	<b>0.0192</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>0.0204</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

The Ritz-Carlton Residences - Existing Uses - Orange County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	11.4764	0.1323	3.2100e-003	15.7394
Unmitigated	11.4764	0.1323	3.2100e-003	15.7394

**7.2 Water by Land Use**

**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Hotel	4.03332 / 0.448146	11.4764	0.1323	3.2100e-003	15.7394
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>11.4764</b>	<b>0.1323</b>	<b>3.2100e-003</b>	<b>15.7394</b>

The Ritz-Carlton Residences - Existing Uses - Orange County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**7.2 Water by Land Use**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Hotel	4.03332 / 0.448146	11.4764	0.1323	3.2100e-003	15.7394
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>11.4764</b>	<b>0.1323</b>	<b>3.2100e-003</b>	<b>15.7394</b>

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

The Ritz-Carlton Residences - Existing Uses - Orange County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	17.6704	1.0443	0.0000	43.7776
Unmitigated	17.6704	1.0443	0.0000	43.7776

**8.2 Waste by Land Use**

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Hotel	87.05	17.6704	1.0443	0.0000	43.7776
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>17.6704</b>	<b>1.0443</b>	<b>0.0000</b>	<b>43.7776</b>



The Ritz-Carlton Residences - Existing Uses - Orange County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**8.2 Waste by Land Use**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Hotel	87.05	17.6704	1.0443	0.0000	43.7776
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>17.6704</b>	<b>1.0443</b>	<b>0.0000</b>	<b>43.7776</b>

**9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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The Ritz-Carlton Residences - Existing Uses - Orange County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**11.0 Vegetation**

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The Ritz-Carlton Residences - Existing Uses - Orange County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**The Ritz-Carlton Residences - Existing Uses**

**Orange County, Summer**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Hotel	159.00	Room	1.33	63,048.00	0
Enclosed Parking with Elevator	612.00	Space	0.52	159,846.00	0
Other Non-Asphalt Surfaces	0.93	Acre	0.93	40,300.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	30
<b>Climate Zone</b>	8			<b>Operational Year</b>	2025
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MW hr)</b>	390.98	<b>CH4 Intensity (lb/MW hr)</b>	0.033	<b>N2O Intensity (lb/MW hr)</b>	0.004

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics -

Land Use - Based on the Project Description provided to LSA on January 21, 2022. Other non-asphalt surfaces includes hardscape.

Construction Phase - Operational run only.

Vehicle Trips - Trip rates based on the average daily trip generation provided in the project's Trip Generation letter dated January 26, 2022.

Energy Use - Using historical data.

Table Name	Column Name	Default Value	New Value
tblEnergyUse	LightingElect	2.63	2.63
tblEnergyUse	T24E	3.92	3.92
tblLandUse	LandUseSquareFeet	230,868.00	63,048.00

The Ritz-Carlton Residences - Existing Uses - Orange County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

tblLandUse	LandUseSquareFeet	244,800.00	159,846.00
tblLandUse	LandUseSquareFeet	40,510.80	40,300.00
tblLandUse	LotAcreage	5.30	1.33
tblLandUse	LotAcreage	5.51	0.52
tblVehicleTrips	ST_TR	8.19	7.99
tblVehicleTrips	SU_TR	5.95	7.99
tblVehicleTrips	WD_TR	8.36	7.99

**2.0 Emissions Summary**

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The Ritz-Carlton Residences - Existing Uses - Orange County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**2.1 Overall Construction (Maximum Daily Emission)**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	2.2610	17.0038	18.6913	0.0440	7.1944	0.8387	7.9373	3.4544	0.7836	4.1378	0.0000	4,281.017 4	4,281.017 4	0.7700	0.1523	4,339.377 2
2023	64.2653	15.3310	18.2381	0.0432	1.5157	0.6277	2.1434	0.4082	0.6013	1.0094	0.0000	4,210.050 4	4,210.050 4	0.5451	0.1447	4,265.835 0
<b>Maximum</b>	<b>64.2653</b>	<b>17.0038</b>	<b>18.6913</b>	<b>0.0440</b>	<b>7.1944</b>	<b>0.8387</b>	<b>7.9373</b>	<b>3.4544</b>	<b>0.7836</b>	<b>4.1378</b>	<b>0.0000</b>	<b>4,281.017 4</b>	<b>4,281.017 4</b>	<b>0.7700</b>	<b>0.1523</b>	<b>4,339.377 2</b>

**Mitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	2.2610	17.0038	18.6913	0.0440	7.1944	0.8387	7.9373	3.4544	0.7836	4.1378	0.0000	4,281.017 4	4,281.017 4	0.7700	0.1523	4,339.377 2
2023	64.2653	15.3310	18.2381	0.0432	1.5157	0.6277	2.1434	0.4082	0.6013	1.0094	0.0000	4,210.050 4	4,210.050 4	0.5451	0.1447	4,265.835 0
<b>Maximum</b>	<b>64.2653</b>	<b>17.0038</b>	<b>18.6913</b>	<b>0.0440</b>	<b>7.1944</b>	<b>0.8387</b>	<b>7.9373</b>	<b>3.4544</b>	<b>0.7836</b>	<b>4.1378</b>	<b>0.0000</b>	<b>4,281.017 4</b>	<b>4,281.017 4</b>	<b>0.7700</b>	<b>0.1523</b>	<b>4,339.377 2</b>



The Ritz-Carlton Residences - Existing Uses - Orange County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.5019	7.1000e-004	0.0786	1.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004		0.1689	0.1689	4.4000e-004		0.1799
Energy	0.0675	0.6137	0.5155	3.6800e-003		0.0466	0.0466		0.0466	0.0466		736.4575	736.4575	0.0141	0.0135	740.8339
Mobile	2.8163	2.5189	25.1501	0.0570	6.3876	0.0392	6.4268	1.7026	0.0364	1.7390		5,950.0122	5,950.0122	0.3686	0.2436	6,031.8195
<b>Total</b>	<b>4.3857</b>	<b>3.1333</b>	<b>25.7442</b>	<b>0.0607</b>	<b>6.3876</b>	<b>0.0861</b>	<b>6.4737</b>	<b>1.7026</b>	<b>0.0833</b>	<b>1.7859</b>		<b>6,686.6387</b>	<b>6,686.6387</b>	<b>0.3831</b>	<b>0.2571</b>	<b>6,772.8334</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.5019	7.1000e-004	0.0786	1.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004		0.1689	0.1689	4.4000e-004		0.1799
Energy	0.0675	0.6137	0.5155	3.6800e-003		0.0466	0.0466		0.0466	0.0466		736.4575	736.4575	0.0141	0.0135	740.8339
Mobile	2.8163	2.5189	25.1501	0.0570	6.3876	0.0392	6.4268	1.7026	0.0364	1.7390		5,950.0122	5,950.0122	0.3686	0.2436	6,031.8195
<b>Total</b>	<b>4.3857</b>	<b>3.1333</b>	<b>25.7442</b>	<b>0.0607</b>	<b>6.3876</b>	<b>0.0861</b>	<b>6.4737</b>	<b>1.7026</b>	<b>0.0833</b>	<b>1.7859</b>		<b>6,686.6387</b>	<b>6,686.6387</b>	<b>0.3831</b>	<b>0.2571</b>	<b>6,772.8334</b>

The Ritz-Carlton Residences - Existing Uses - Orange County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

**3.0 Construction Detail**

**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/1/2022	6/28/2022	5	20	
2	Site Preparation	Site Preparation	6/29/2022	7/1/2022	5	3	
3	Grading	Grading	7/2/2022	7/11/2022	5	6	
4	Building Construction	Building Construction	7/12/2022	5/15/2023	5	220	
5	Paving	Paving	5/16/2023	5/29/2023	5	10	
6	Architectural Coating	Architectural Coating	5/30/2023	6/12/2023	5	10	

**Acres of Grading (Site Preparation Phase): 4.5**

**Acres of Grading (Grading Phase): 6**

**Acres of Paving: 1.45**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 94,572; Non-Residential Outdoor: 31,524; Striped Parking Area: 12,009 (Architectural Coating – sqft)**

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20



The Ritz-Carlton Residences - Existing Uses - Orange County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Scrapers	1	8.00	367	0.48
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	111.00	43.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	22.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

The Ritz-Carlton Residences - Existing Uses - Orange County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.2 Demolition - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6889	16.6217	13.9605	0.0241		0.8379	0.8379		0.7829	0.7829		2,323.4168	2,323.4168	0.5921		2,338.2191
<b>Total</b>	<b>1.6889</b>	<b>16.6217</b>	<b>13.9605</b>	<b>0.0241</b>		<b>0.8379</b>	<b>0.8379</b>		<b>0.7829</b>	<b>0.7829</b>		<b>2,323.4168</b>	<b>2,323.4168</b>	<b>0.5921</b>		<b>2,338.2191</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0391	0.0263	0.4278	1.2700e-003	0.1453	7.8000e-004	0.1461	0.0385	7.2000e-004	0.0393		128.8404	128.8404	3.0100e-003	2.8800e-003	129.7729
<b>Total</b>	<b>0.0391</b>	<b>0.0263</b>	<b>0.4278</b>	<b>1.2700e-003</b>	<b>0.1453</b>	<b>7.8000e-004</b>	<b>0.1461</b>	<b>0.0385</b>	<b>7.2000e-004</b>	<b>0.0393</b>		<b>128.8404</b>	<b>128.8404</b>	<b>3.0100e-003</b>	<b>2.8800e-003</b>	<b>129.7729</b>

The Ritz-Carlton Residences - Existing Uses - Orange County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.2 Demolition - 2022**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6889	16.6217	13.9605	0.0241		0.8379	0.8379		0.7829	0.7829	0.0000	2,323.4168	2,323.4168	0.5921		2,338.2191
<b>Total</b>	<b>1.6889</b>	<b>16.6217</b>	<b>13.9605</b>	<b>0.0241</b>		<b>0.8379</b>	<b>0.8379</b>		<b>0.7829</b>	<b>0.7829</b>	<b>0.0000</b>	<b>2,323.4168</b>	<b>2,323.4168</b>	<b>0.5921</b>		<b>2,338.2191</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0391	0.0263	0.4278	1.2700e-003	0.1453	7.8000e-004	0.1461	0.0385	7.2000e-004	0.0393		128.8404	128.8404	3.0100e-003	2.8800e-003	129.7729
<b>Total</b>	<b>0.0391</b>	<b>0.0263</b>	<b>0.4278</b>	<b>1.2700e-003</b>	<b>0.1453</b>	<b>7.8000e-004</b>	<b>0.1461</b>	<b>0.0385</b>	<b>7.2000e-004</b>	<b>0.0393</b>		<b>128.8404</b>	<b>128.8404</b>	<b>3.0100e-003</b>	<b>2.8800e-003</b>	<b>129.7729</b>

The Ritz-Carlton Residences - Existing Uses - Orange County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.3 Site Preparation - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5908	0.0000	1.5908	0.1718	0.0000	0.1718			0.0000			0.0000
Off-Road	1.3784	15.6673	10.0558	0.0245		0.5952	0.5952		0.5476	0.5476		2,375.1569	2,375.1569	0.7682		2,394.3613
<b>Total</b>	<b>1.3784</b>	<b>15.6673</b>	<b>10.0558</b>	<b>0.0245</b>	<b>1.5908</b>	<b>0.5952</b>	<b>2.1859</b>	<b>0.1718</b>	<b>0.5476</b>	<b>0.7193</b>		<b>2,375.1569</b>	<b>2,375.1569</b>	<b>0.7682</b>		<b>2,394.3613</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0241	0.0162	0.2633	7.8000e-004	0.0894	4.8000e-004	0.0899	0.0237	4.4000e-004	0.0242		79.2864	79.2864	1.8500e-003	1.7700e-003	79.8603
<b>Total</b>	<b>0.0241</b>	<b>0.0162</b>	<b>0.2633</b>	<b>7.8000e-004</b>	<b>0.0894</b>	<b>4.8000e-004</b>	<b>0.0899</b>	<b>0.0237</b>	<b>4.4000e-004</b>	<b>0.0242</b>		<b>79.2864</b>	<b>79.2864</b>	<b>1.8500e-003</b>	<b>1.7700e-003</b>	<b>79.8603</b>

The Ritz-Carlton Residences - Existing Uses - Orange County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.3 Site Preparation - 2022**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5908	0.0000	1.5908	0.1718	0.0000	0.1718			0.0000			0.0000
Off-Road	1.3784	15.6673	10.0558	0.0245		0.5952	0.5952		0.5476	0.5476	0.0000	2,375.1569	2,375.1569	0.7682		2,394.3613
<b>Total</b>	<b>1.3784</b>	<b>15.6673</b>	<b>10.0558</b>	<b>0.0245</b>	<b>1.5908</b>	<b>0.5952</b>	<b>2.1859</b>	<b>0.1718</b>	<b>0.5476</b>	<b>0.7193</b>	<b>0.0000</b>	<b>2,375.1569</b>	<b>2,375.1569</b>	<b>0.7682</b>		<b>2,394.3613</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0241	0.0162	0.2633	7.8000e-004	0.0894	4.8000e-004	0.0899	0.0237	4.4000e-004	0.0242		79.2864	79.2864	1.8500e-003	1.7700e-003	79.8603
<b>Total</b>	<b>0.0241</b>	<b>0.0162</b>	<b>0.2633</b>	<b>7.8000e-004</b>	<b>0.0894</b>	<b>4.8000e-004</b>	<b>0.0899</b>	<b>0.0237</b>	<b>4.4000e-004</b>	<b>0.0242</b>		<b>79.2864</b>	<b>79.2864</b>	<b>1.8500e-003</b>	<b>1.7700e-003</b>	<b>79.8603</b>

The Ritz-Carlton Residences - Existing Uses - Orange County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.4 Grading - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.0826	0.0000	7.0826	3.4247	0.0000	3.4247			0.0000			0.0000
Off-Road	1.5403	16.9836	9.2202	0.0206		0.7423	0.7423		0.6829	0.6829		1,995.4825	1,995.4825	0.6454		2,011.6169
<b>Total</b>	<b>1.5403</b>	<b>16.9836</b>	<b>9.2202</b>	<b>0.0206</b>	<b>7.0826</b>	<b>0.7423</b>	<b>7.8249</b>	<b>3.4247</b>	<b>0.6829</b>	<b>4.1076</b>		<b>1,995.4825</b>	<b>1,995.4825</b>	<b>0.6454</b>		<b>2,011.6169</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0301	0.0202	0.3291	9.7000e-004	0.1118	6.0000e-004	0.1124	0.0296	5.6000e-004	0.0302		99.1080	99.1080	2.3200e-003	2.2100e-003	99.8253
<b>Total</b>	<b>0.0301</b>	<b>0.0202</b>	<b>0.3291</b>	<b>9.7000e-004</b>	<b>0.1118</b>	<b>6.0000e-004</b>	<b>0.1124</b>	<b>0.0296</b>	<b>5.6000e-004</b>	<b>0.0302</b>		<b>99.1080</b>	<b>99.1080</b>	<b>2.3200e-003</b>	<b>2.2100e-003</b>	<b>99.8253</b>

The Ritz-Carlton Residences - Existing Uses - Orange County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.4 Grading - 2022**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.0826	0.0000	7.0826	3.4247	0.0000	3.4247			0.0000			0.0000
Off-Road	1.5403	16.9836	9.2202	0.0206		0.7423	0.7423		0.6829	0.6829	0.0000	1,995.4825	1,995.4825	0.6454		2,011.6169
<b>Total</b>	<b>1.5403</b>	<b>16.9836</b>	<b>9.2202</b>	<b>0.0206</b>	<b>7.0826</b>	<b>0.7423</b>	<b>7.8249</b>	<b>3.4247</b>	<b>0.6829</b>	<b>4.1076</b>	<b>0.0000</b>	<b>1,995.4825</b>	<b>1,995.4825</b>	<b>0.6454</b>		<b>2,011.6169</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0301	0.0202	0.3291	9.7000e-004	0.1118	6.0000e-004	0.1124	0.0296	5.6000e-004	0.0302		99.1080	99.1080	2.3200e-003	2.2100e-003	99.8253
<b>Total</b>	<b>0.0301</b>	<b>0.0202</b>	<b>0.3291</b>	<b>9.7000e-004</b>	<b>0.1118</b>	<b>6.0000e-004</b>	<b>0.1124</b>	<b>0.0296</b>	<b>5.6000e-004</b>	<b>0.0302</b>		<b>99.1080</b>	<b>99.1080</b>	<b>2.3200e-003</b>	<b>2.2100e-003</b>	<b>99.8253</b>

The Ritz-Carlton Residences - Existing Uses - Orange County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.5 Building Construction - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8555	14.6040	14.3533	0.0250		0.7022	0.7022		0.6731	0.6731		2,289.2813	2,289.2813	0.4417		2,300.3230
<b>Total</b>	<b>1.8555</b>	<b>14.6040</b>	<b>14.3533</b>	<b>0.0250</b>		<b>0.7022</b>	<b>0.7022</b>		<b>0.6731</b>	<b>0.6731</b>		<b>2,289.2813</b>	<b>2,289.2813</b>	<b>0.4417</b>		<b>2,300.3230</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0715	1.9294	0.6851	8.1400e-003	0.2750	0.0188	0.2937	0.0791	0.0180	0.0971		891.6376	891.6376	0.0511	0.1278	930.9932
Worker	0.3340	0.2244	3.6529	0.0108	1.2407	6.7000e-003	1.2474	0.3290	6.1600e-003	0.3352		1,100.0985	1,100.0985	0.0257	0.0246	1,108.0611
<b>Total</b>	<b>0.4055</b>	<b>2.1538</b>	<b>4.3380</b>	<b>0.0190</b>	<b>1.5157</b>	<b>0.0255</b>	<b>1.5411</b>	<b>0.4082</b>	<b>0.0241</b>	<b>0.4323</b>		<b>1,991.7361</b>	<b>1,991.7361</b>	<b>0.0768</b>	<b>0.1523</b>	<b>2,039.0542</b>



The Ritz-Carlton Residences - Existing Uses - Orange County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.5 Building Construction - 2022**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8555	14.6040	14.3533	0.0250		0.7022	0.7022		0.6731	0.6731	0.0000	2,289.2813	2,289.2813	0.4417		2,300.3230
<b>Total</b>	<b>1.8555</b>	<b>14.6040</b>	<b>14.3533</b>	<b>0.0250</b>		<b>0.7022</b>	<b>0.7022</b>		<b>0.6731</b>	<b>0.6731</b>	<b>0.0000</b>	<b>2,289.2813</b>	<b>2,289.2813</b>	<b>0.4417</b>		<b>2,300.3230</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0715	1.9294	0.6851	8.1400e-003	0.2750	0.0188	0.2937	0.0791	0.0180	0.0971		891.6376	891.6376	0.0511	0.1278	930.9932
Worker	0.3340	0.2244	3.6529	0.0108	1.2407	6.7000e-003	1.2474	0.3290	6.1600e-003	0.3352		1,100.0985	1,100.0985	0.0257	0.0246	1,108.0611
<b>Total</b>	<b>0.4055</b>	<b>2.1538</b>	<b>4.3380</b>	<b>0.0190</b>	<b>1.5157</b>	<b>0.0255</b>	<b>1.5411</b>	<b>0.4082</b>	<b>0.0241</b>	<b>0.4323</b>		<b>1,991.7361</b>	<b>1,991.7361</b>	<b>0.0768</b>	<b>0.1523</b>	<b>2,039.0542</b>

The Ritz-Carlton Residences - Existing Uses - Orange County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.5 Building Construction - 2023**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7136	13.6239	14.2145	0.0250		0.6136	0.6136		0.5880	0.5880		2,289.5233	2,289.5233	0.4330		2,300.3479
<b>Total</b>	<b>1.7136</b>	<b>13.6239</b>	<b>14.2145</b>	<b>0.0250</b>		<b>0.6136</b>	<b>0.6136</b>		<b>0.5880</b>	<b>0.5880</b>		<b>2,289.5233</b>	<b>2,289.5233</b>	<b>0.4330</b>		<b>2,300.3479</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0434	1.5070	0.6248	7.7300e-003	0.2750	7.7300e-003	0.2827	0.0791	7.3900e-003	0.0865		849.0324	849.0324	0.0505	0.1218	886.5983
Worker	0.3128	0.2001	3.3989	0.0105	1.2407	6.3400e-003	1.2471	0.3290	5.8400e-003	0.3349		1,071.4947	1,071.4947	0.0233	0.0229	1,078.8888
<b>Total</b>	<b>0.3562</b>	<b>1.7071</b>	<b>4.0237</b>	<b>0.0182</b>	<b>1.5157</b>	<b>0.0141</b>	<b>1.5297</b>	<b>0.4082</b>	<b>0.0132</b>	<b>0.4214</b>		<b>1,920.5271</b>	<b>1,920.5271</b>	<b>0.0737</b>	<b>0.1447</b>	<b>1,965.4871</b>

The Ritz-Carlton Residences - Existing Uses - Orange County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.5 Building Construction - 2023**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7136	13.6239	14.2145	0.0250		0.6136	0.6136		0.5880	0.5880	0.0000	2,289.5233	2,289.5233	0.4330		2,300.3479
<b>Total</b>	<b>1.7136</b>	<b>13.6239</b>	<b>14.2145</b>	<b>0.0250</b>		<b>0.6136</b>	<b>0.6136</b>		<b>0.5880</b>	<b>0.5880</b>	<b>0.0000</b>	<b>2,289.5233</b>	<b>2,289.5233</b>	<b>0.4330</b>		<b>2,300.3479</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0434	1.5070	0.6248	7.7300e-003	0.2750	7.7300e-003	0.2827	0.0791	7.3900e-003	0.0865		849.0324	849.0324	0.0505	0.1218	886.5983
Worker	0.3128	0.2001	3.3989	0.0105	1.2407	6.3400e-003	1.2471	0.3290	5.8400e-003	0.3349		1,071.4947	1,071.4947	0.0233	0.0229	1,078.8888
<b>Total</b>	<b>0.3562</b>	<b>1.7071</b>	<b>4.0237</b>	<b>0.0182</b>	<b>1.5157</b>	<b>0.0141</b>	<b>1.5297</b>	<b>0.4082</b>	<b>0.0132</b>	<b>0.4214</b>		<b>1,920.5271</b>	<b>1,920.5271</b>	<b>0.0737</b>	<b>0.1447</b>	<b>1,965.4871</b>

The Ritz-Carlton Residences - Existing Uses - Orange County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.6 Paving - 2023**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8802	8.6098	11.6840	0.0179		0.4338	0.4338		0.4003	0.4003		1,709.9926	1,709.9926	0.5420		1,723.5414
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.8802</b>	<b>8.6098</b>	<b>11.6840</b>	<b>0.0179</b>		<b>0.4338</b>	<b>0.4338</b>		<b>0.4003</b>	<b>0.4003</b>		<b>1,709.9926</b>	<b>1,709.9926</b>	<b>0.5420</b>		<b>1,723.5414</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0423	0.0270	0.4593	1.4100e-003	0.1677	8.6000e-004	0.1685	0.0445	7.9000e-004	0.0453		144.7966	144.7966	3.1400e-003	3.0900e-003	145.7958
<b>Total</b>	<b>0.0423</b>	<b>0.0270</b>	<b>0.4593</b>	<b>1.4100e-003</b>	<b>0.1677</b>	<b>8.6000e-004</b>	<b>0.1685</b>	<b>0.0445</b>	<b>7.9000e-004</b>	<b>0.0453</b>		<b>144.7966</b>	<b>144.7966</b>	<b>3.1400e-003</b>	<b>3.0900e-003</b>	<b>145.7958</b>

The Ritz-Carlton Residences - Existing Uses - Orange County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.6 Paving - 2023**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8802	8.6098	11.6840	0.0179		0.4338	0.4338		0.4003	0.4003	0.0000	1,709.9926	1,709.9926	0.5420		1,723.5414
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.8802</b>	<b>8.6098</b>	<b>11.6840</b>	<b>0.0179</b>		<b>0.4338</b>	<b>0.4338</b>		<b>0.4003</b>	<b>0.4003</b>	<b>0.0000</b>	<b>1,709.9926</b>	<b>1,709.9926</b>	<b>0.5420</b>		<b>1,723.5414</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0423	0.0270	0.4593	1.4100e-003	0.1677	8.6000e-004	0.1685	0.0445	7.9000e-004	0.0453		144.7966	144.7966	3.1400e-003	3.0900e-003	145.7958
<b>Total</b>	<b>0.0423</b>	<b>0.0270</b>	<b>0.4593</b>	<b>1.4100e-003</b>	<b>0.1677</b>	<b>8.6000e-004</b>	<b>0.1685</b>	<b>0.0445</b>	<b>7.9000e-004</b>	<b>0.0453</b>		<b>144.7966</b>	<b>144.7966</b>	<b>3.1400e-003</b>	<b>3.0900e-003</b>	<b>145.7958</b>

The Ritz-Carlton Residences - Existing Uses - Orange County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.7 Architectural Coating - 2023**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	64.0117					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
<b>Total</b>	<b>64.2033</b>	<b>1.3030</b>	<b>1.8111</b>	<b>2.9700e-003</b>		<b>0.0708</b>	<b>0.0708</b>		<b>0.0708</b>	<b>0.0708</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0168</b>		<b>281.8690</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0620	0.0397	0.6737	2.0800e-003	0.2459	1.2600e-003	0.2472	0.0652	1.1600e-003	0.0664		212.3683	212.3683	4.6100e-003	4.5300e-003	213.8338
<b>Total</b>	<b>0.0620</b>	<b>0.0397</b>	<b>0.6737</b>	<b>2.0800e-003</b>	<b>0.2459</b>	<b>1.2600e-003</b>	<b>0.2472</b>	<b>0.0652</b>	<b>1.1600e-003</b>	<b>0.0664</b>		<b>212.3683</b>	<b>212.3683</b>	<b>4.6100e-003</b>	<b>4.5300e-003</b>	<b>213.8338</b>

The Ritz-Carlton Residences - Existing Uses - Orange County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.7 Architectural Coating - 2023**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	64.0117					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
<b>Total</b>	<b>64.2033</b>	<b>1.3030</b>	<b>1.8111</b>	<b>2.9700e-003</b>		<b>0.0708</b>	<b>0.0708</b>		<b>0.0708</b>	<b>0.0708</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0168</b>		<b>281.8690</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0620	0.0397	0.6737	2.0800e-003	0.2459	1.2600e-003	0.2472	0.0652	1.1600e-003	0.0664		212.3683	212.3683	4.6100e-003	4.5300e-003	213.8338
<b>Total</b>	<b>0.0620</b>	<b>0.0397</b>	<b>0.6737</b>	<b>2.0800e-003</b>	<b>0.2459</b>	<b>1.2600e-003</b>	<b>0.2472</b>	<b>0.0652</b>	<b>1.1600e-003</b>	<b>0.0664</b>		<b>212.3683</b>	<b>212.3683</b>	<b>4.6100e-003</b>	<b>4.5300e-003</b>	<b>213.8338</b>

The Ritz-Carlton Residences - Existing Uses - Orange County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**4.0 Operational Detail - Mobile**

**4.1 Mitigation Measures Mobile**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.8163	2.5189	25.1501	0.0570	6.3876	0.0392	6.4268	1.7026	0.0364	1.7390		5,950.012 2	5,950.012 2	0.3686	0.2436	6,031.819 5
Unmitigated	2.8163	2.5189	25.1501	0.0570	6.3876	0.0392	6.4268	1.7026	0.0364	1.7390		5,950.012 2	5,950.012 2	0.3686	0.2436	6,031.819 5

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Enclosed Parking with Elevator	0.00	0.00	0.00		
Hotel	1,270.41	1,270.41	1,270.41	3,031,416	3,031,416
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
<b>Total</b>	<b>1,270.41</b>	<b>1,270.41</b>	<b>1,270.41</b>	<b>3,031,416</b>	<b>3,031,416</b>

**4.3 Trip Type Information**

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0



The Ritz-Carlton Residences - Existing Uses - Orange County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Enclosed Parking with Elevator	0.547453	0.060181	0.185039	0.126487	0.024236	0.006679	0.014707	0.004926	0.000662	0.000378	0.024745	0.000705	0.003801
Hotel	0.547453	0.060181	0.185039	0.126487	0.024236	0.006679	0.014707	0.004926	0.000662	0.000378	0.024745	0.000705	0.003801
Other Non-Asphalt Surfaces	0.547453	0.060181	0.185039	0.126487	0.024236	0.006679	0.014707	0.004926	0.000662	0.000378	0.024745	0.000705	0.003801

**5.0 Energy Detail**

Historical Energy Use: Y

**5.1 Mitigation Measures Energy**

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
NaturalGas Mitigated	0.0675	0.6137	0.5155	3.6800e-003		0.0466	0.0466		0.0466	0.0466		736.4575	736.4575	0.0141	0.0135	740.8339
NaturalGas Unmitigated	0.0675	0.6137	0.5155	3.6800e-003		0.0466	0.0466		0.0466	0.0466		736.4575	736.4575	0.0141	0.0135	740.8339

The Ritz-Carlton Residences - Existing Uses - Orange County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**5.2 Energy by Land Use - Natural Gas**

**Unmitigated**

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Hotel	6259.89	0.0675	0.6137	0.5155	3.6800e-003		0.0466	0.0466		0.0466	0.0466		736.4575	736.4575	0.0141	0.0135	740.8339
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0675</b>	<b>0.6137</b>	<b>0.5155</b>	<b>3.6800e-003</b>		<b>0.0466</b>	<b>0.0466</b>		<b>0.0466</b>	<b>0.0466</b>		<b>736.4575</b>	<b>736.4575</b>	<b>0.0141</b>	<b>0.0135</b>	<b>740.8339</b>

The Ritz-Carlton Residences - Existing Uses - Orange County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**5.2 Energy by Land Use - NaturalGas**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Hotel	6.25989	0.0675	0.6137	0.5155	3.6800e-003		0.0466	0.0466		0.0466	0.0466		736.4575	736.4575	0.0141	0.0135	740.8339
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0675</b>	<b>0.6137</b>	<b>0.5155</b>	<b>3.6800e-003</b>		<b>0.0466</b>	<b>0.0466</b>		<b>0.0466</b>	<b>0.0466</b>		<b>736.4575</b>	<b>736.4575</b>	<b>0.0141</b>	<b>0.0135</b>	<b>740.8339</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

The Ritz-Carlton Residences - Existing Uses - Orange County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.5019	7.1000e-004	0.0786	1.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004		0.1689	0.1689	4.4000e-004		0.1799
Unmitigated	1.5019	7.1000e-004	0.0786	1.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004		0.1689	0.1689	4.4000e-004		0.1799

**6.2 Area by SubCategory**

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1754					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.3192					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	7.2400e-003	7.1000e-004	0.0786	1.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004		0.1689	0.1689	4.4000e-004		0.1799
<b>Total</b>	<b>1.5019</b>	<b>7.1000e-004</b>	<b>0.0786</b>	<b>1.0000e-005</b>		<b>2.8000e-004</b>	<b>2.8000e-004</b>		<b>2.8000e-004</b>	<b>2.8000e-004</b>		<b>0.1689</b>	<b>0.1689</b>	<b>4.4000e-004</b>		<b>0.1799</b>

The Ritz-Carlton Residences - Existing Uses - Orange County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1754					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.3192					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	7.2400e-003	7.1000e-004	0.0786	1.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004		0.1689	0.1689	4.4000e-004		0.1799
<b>Total</b>	<b>1.5019</b>	<b>7.1000e-004</b>	<b>0.0786</b>	<b>1.0000e-005</b>		<b>2.8000e-004</b>	<b>2.8000e-004</b>		<b>2.8000e-004</b>	<b>2.8000e-004</b>		<b>0.1689</b>	<b>0.1689</b>	<b>4.4000e-004</b>		<b>0.1799</b>

**7.0 Water Detail**

**7.1 Mitigation Measures Water**

The Ritz-Carlton Residences - Existing Uses - Orange County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

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**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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The Ritz-Carlton Residences - Existing Uses - Orange County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**The Ritz-Carlton Residences - Existing Uses  
Orange County, Winter**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Hotel	159.00	Room	1.33	63,048.00	0
Enclosed Parking with Elevator	612.00	Space	0.52	159,846.00	0
Other Non-Asphalt Surfaces	0.93	Acre	0.93	40,300.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	30
<b>Climate Zone</b>	8			<b>Operational Year</b>	2025
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MWhr)</b>	390.98	<b>CH4 Intensity (lb/MWhr)</b>	0.033	<b>N2O Intensity (lb/MWhr)</b>	0.004

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics -

Land Use - Based on the Project Description provided to LSA on January 21, 2022. Other non-asphalt surfaces includes hardscape.

Construction Phase - Operational run only.

Vehicle Trips - Trip rates based on the average daily trip generation provided in the project's Trip Generation letter dated January 26, 2022.

Energy Use - Using historical data.

Table Name	Column Name	Default Value	New Value
tblEnergyUse	LightingElect	2.63	2.63
tblEnergyUse	T24E	3.92	3.92
tblLandUse	LandUseSquareFeet	230,868.00	63,048.00

The Ritz-Carlton Residences - Existing Uses - Orange County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

tblLandUse	LandUseSquareFeet	244,800.00	159,846.00
tblLandUse	LandUseSquareFeet	40,510.80	40,300.00
tblLandUse	LotAcreage	5.30	1.33
tblLandUse	LotAcreage	5.51	0.52
tblVehicleTrips	ST_TR	8.19	7.99
tblVehicleTrips	SU_TR	5.95	7.99
tblVehicleTrips	WD_TR	8.36	7.99

**2.0 Emissions Summary**

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The Ritz-Carlton Residences - Existing Uses - Orange County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**2.1 Overall Construction (Maximum Daily Emission)**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	2.2898	17.0058	18.4621	0.0435	7.1944	0.8387	7.9373	3.4544	0.7836	4.1378	0.0000	4,228.5528	4,228.5528	0.7701	0.1541	4,287.4339
2023	64.2711	15.4178	18.0255	0.0427	1.5157	0.6278	2.1434	0.4082	0.6013	1.0095	0.0000	4,160.0681	4,160.0681	0.5452	0.1464	4,216.3814
<b>Maximum</b>	<b>64.2711</b>	<b>17.0058</b>	<b>18.4621</b>	<b>0.0435</b>	<b>7.1944</b>	<b>0.8387</b>	<b>7.9373</b>	<b>3.4544</b>	<b>0.7836</b>	<b>4.1378</b>	<b>0.0000</b>	<b>4,228.5528</b>	<b>4,228.5528</b>	<b>0.7701</b>	<b>0.1541</b>	<b>4,287.4339</b>

**Mitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	2.2898	17.0058	18.4621	0.0435	7.1944	0.8387	7.9373	3.4544	0.7836	4.1378	0.0000	4,228.5528	4,228.5528	0.7701	0.1541	4,287.4339
2023	64.2711	15.4178	18.0255	0.0427	1.5157	0.6278	2.1434	0.4082	0.6013	1.0095	0.0000	4,160.0681	4,160.0681	0.5452	0.1464	4,216.3814
<b>Maximum</b>	<b>64.2711</b>	<b>17.0058</b>	<b>18.4621</b>	<b>0.0435</b>	<b>7.1944</b>	<b>0.8387</b>	<b>7.9373</b>	<b>3.4544</b>	<b>0.7836</b>	<b>4.1378</b>	<b>0.0000</b>	<b>4,228.5528</b>	<b>4,228.5528</b>	<b>0.7701</b>	<b>0.1541</b>	<b>4,287.4339</b>



The Ritz-Carlton Residences - Existing Uses - Orange County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.5019	7.1000e-004	0.0786	1.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004		0.1689	0.1689	4.4000e-004		0.1799
Energy	0.0675	0.6137	0.5155	3.6800e-003		0.0466	0.0466		0.0466	0.0466		736.4575	736.4575	0.0141	0.0135	740.8339
Mobile	2.7857	2.7047	25.1878	0.0548	6.3876	0.0392	6.4268	1.7026	0.0364	1.7390		5,726.1517	5,726.1517	0.3832	0.2539	5,811.3895
<b>Total</b>	<b>4.3550</b>	<b>3.3191</b>	<b>25.7819</b>	<b>0.0585</b>	<b>6.3876</b>	<b>0.0861</b>	<b>6.4737</b>	<b>1.7026</b>	<b>0.0833</b>	<b>1.7859</b>		<b>6,462.7781</b>	<b>6,462.7781</b>	<b>0.3978</b>	<b>0.2674</b>	<b>6,552.4033</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.5019	7.1000e-004	0.0786	1.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004		0.1689	0.1689	4.4000e-004		0.1799
Energy	0.0675	0.6137	0.5155	3.6800e-003		0.0466	0.0466		0.0466	0.0466		736.4575	736.4575	0.0141	0.0135	740.8339
Mobile	2.7857	2.7047	25.1878	0.0548	6.3876	0.0392	6.4268	1.7026	0.0364	1.7390		5,726.1517	5,726.1517	0.3832	0.2539	5,811.3895
<b>Total</b>	<b>4.3550</b>	<b>3.3191</b>	<b>25.7819</b>	<b>0.0585</b>	<b>6.3876</b>	<b>0.0861</b>	<b>6.4737</b>	<b>1.7026</b>	<b>0.0833</b>	<b>1.7859</b>		<b>6,462.7781</b>	<b>6,462.7781</b>	<b>0.3978</b>	<b>0.2674</b>	<b>6,552.4033</b>

The Ritz-Carlton Residences - Existing Uses - Orange County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

**3.0 Construction Detail**

**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/1/2022	6/28/2022	5	20	
2	Site Preparation	Site Preparation	6/29/2022	7/1/2022	5	3	
3	Grading	Grading	7/2/2022	7/11/2022	5	6	
4	Building Construction	Building Construction	7/12/2022	5/15/2023	5	220	
5	Paving	Paving	5/16/2023	5/29/2023	5	10	
6	Architectural Coating	Architectural Coating	5/30/2023	6/12/2023	5	10	

**Acres of Grading (Site Preparation Phase): 4.5**

**Acres of Grading (Grading Phase): 6**

**Acres of Paving: 1.45**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 94,572; Non-Residential Outdoor: 31,524; Striped Parking Area: 12,009 (Architectural Coating – sqft)**

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20

The Ritz-Carlton Residences - Existing Uses - Orange County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Scrapers	1	8.00	367	0.48
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	111.00	43.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	22.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

The Ritz-Carlton Residences - Existing Uses - Orange County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.2 Demolition - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6889	16.6217	13.9605	0.0241		0.8379	0.8379		0.7829	0.7829		2,323.4168	2,323.4168	0.5921		2,338.2191
<b>Total</b>	<b>1.6889</b>	<b>16.6217</b>	<b>13.9605</b>	<b>0.0241</b>		<b>0.8379</b>	<b>0.8379</b>		<b>0.7829</b>	<b>0.7829</b>		<b>2,323.4168</b>	<b>2,323.4168</b>	<b>0.5921</b>		<b>2,338.2191</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0426	0.0289	0.3981	1.2100e-003	0.1453	7.8000e-004	0.1461	0.0385	7.2000e-004	0.0393		122.6631	122.6631	3.0800e-003	3.0600e-003	123.6524
<b>Total</b>	<b>0.0426</b>	<b>0.0289</b>	<b>0.3981</b>	<b>1.2100e-003</b>	<b>0.1453</b>	<b>7.8000e-004</b>	<b>0.1461</b>	<b>0.0385</b>	<b>7.2000e-004</b>	<b>0.0393</b>		<b>122.6631</b>	<b>122.6631</b>	<b>3.0800e-003</b>	<b>3.0600e-003</b>	<b>123.6524</b>

The Ritz-Carlton Residences - Existing Uses - Orange County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.2 Demolition - 2022**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6889	16.6217	13.9605	0.0241		0.8379	0.8379		0.7829	0.7829	0.0000	2,323.4168	2,323.4168	0.5921		2,338.2191
<b>Total</b>	<b>1.6889</b>	<b>16.6217</b>	<b>13.9605</b>	<b>0.0241</b>		<b>0.8379</b>	<b>0.8379</b>		<b>0.7829</b>	<b>0.7829</b>	<b>0.0000</b>	<b>2,323.4168</b>	<b>2,323.4168</b>	<b>0.5921</b>		<b>2,338.2191</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0426	0.0289	0.3981	1.2100e-003	0.1453	7.8000e-004	0.1461	0.0385	7.2000e-004	0.0393		122.6631	122.6631	3.0800e-003	3.0600e-003	123.6524
<b>Total</b>	<b>0.0426</b>	<b>0.0289</b>	<b>0.3981</b>	<b>1.2100e-003</b>	<b>0.1453</b>	<b>7.8000e-004</b>	<b>0.1461</b>	<b>0.0385</b>	<b>7.2000e-004</b>	<b>0.0393</b>		<b>122.6631</b>	<b>122.6631</b>	<b>3.0800e-003</b>	<b>3.0600e-003</b>	<b>123.6524</b>

The Ritz-Carlton Residences - Existing Uses - Orange County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.3 Site Preparation - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5908	0.0000	1.5908	0.1718	0.0000	0.1718			0.0000			0.0000
Off-Road	1.3784	15.6673	10.0558	0.0245		0.5952	0.5952		0.5476	0.5476		2,375.1569	2,375.1569	0.7682		2,394.3613
<b>Total</b>	<b>1.3784</b>	<b>15.6673</b>	<b>10.0558</b>	<b>0.0245</b>	<b>1.5908</b>	<b>0.5952</b>	<b>2.1859</b>	<b>0.1718</b>	<b>0.5476</b>	<b>0.7193</b>		<b>2,375.1569</b>	<b>2,375.1569</b>	<b>0.7682</b>		<b>2,394.3613</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0262	0.0178	0.2450	7.4000e-004	0.0894	4.8000e-004	0.0899	0.0237	4.4000e-004	0.0242		75.4850	75.4850	1.8900e-003	1.8800e-003	76.0938
<b>Total</b>	<b>0.0262</b>	<b>0.0178</b>	<b>0.2450</b>	<b>7.4000e-004</b>	<b>0.0894</b>	<b>4.8000e-004</b>	<b>0.0899</b>	<b>0.0237</b>	<b>4.4000e-004</b>	<b>0.0242</b>		<b>75.4850</b>	<b>75.4850</b>	<b>1.8900e-003</b>	<b>1.8800e-003</b>	<b>76.0938</b>



The Ritz-Carlton Residences - Existing Uses - Orange County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.3 Site Preparation - 2022**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5908	0.0000	1.5908	0.1718	0.0000	0.1718			0.0000			0.0000
Off-Road	1.3784	15.6673	10.0558	0.0245		0.5952	0.5952		0.5476	0.5476	0.0000	2,375.1569	2,375.1569	0.7682		2,394.3613
<b>Total</b>	<b>1.3784</b>	<b>15.6673</b>	<b>10.0558</b>	<b>0.0245</b>	<b>1.5908</b>	<b>0.5952</b>	<b>2.1859</b>	<b>0.1718</b>	<b>0.5476</b>	<b>0.7193</b>	<b>0.0000</b>	<b>2,375.1569</b>	<b>2,375.1569</b>	<b>0.7682</b>		<b>2,394.3613</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0262	0.0178	0.2450	7.4000e-004	0.0894	4.8000e-004	0.0899	0.0237	4.4000e-004	0.0242		75.4850	75.4850	1.8900e-003	1.8800e-003	76.0938
<b>Total</b>	<b>0.0262</b>	<b>0.0178</b>	<b>0.2450</b>	<b>7.4000e-004</b>	<b>0.0894</b>	<b>4.8000e-004</b>	<b>0.0899</b>	<b>0.0237</b>	<b>4.4000e-004</b>	<b>0.0242</b>		<b>75.4850</b>	<b>75.4850</b>	<b>1.8900e-003</b>	<b>1.8800e-003</b>	<b>76.0938</b>

The Ritz-Carlton Residences - Existing Uses - Orange County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.4 Grading - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.0826	0.0000	7.0826	3.4247	0.0000	3.4247			0.0000			0.0000
Off-Road	1.5403	16.9836	9.2202	0.0206		0.7423	0.7423		0.6829	0.6829		1,995.4825	1,995.4825	0.6454		2,011.6169
<b>Total</b>	<b>1.5403</b>	<b>16.9836</b>	<b>9.2202</b>	<b>0.0206</b>	<b>7.0826</b>	<b>0.7423</b>	<b>7.8249</b>	<b>3.4247</b>	<b>0.6829</b>	<b>4.1076</b>		<b>1,995.4825</b>	<b>1,995.4825</b>	<b>0.6454</b>		<b>2,011.6169</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0328	0.0222	0.3062	9.3000e-004	0.1118	6.0000e-004	0.1124	0.0296	5.6000e-004	0.0302		94.3562	94.3562	2.3700e-003	2.3600e-003	95.1173
<b>Total</b>	<b>0.0328</b>	<b>0.0222</b>	<b>0.3062</b>	<b>9.3000e-004</b>	<b>0.1118</b>	<b>6.0000e-004</b>	<b>0.1124</b>	<b>0.0296</b>	<b>5.6000e-004</b>	<b>0.0302</b>		<b>94.3562</b>	<b>94.3562</b>	<b>2.3700e-003</b>	<b>2.3600e-003</b>	<b>95.1173</b>

The Ritz-Carlton Residences - Existing Uses - Orange County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.4 Grading - 2022**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.0826	0.0000	7.0826	3.4247	0.0000	3.4247			0.0000			0.0000
Off-Road	1.5403	16.9836	9.2202	0.0206		0.7423	0.7423		0.6829	0.6829	0.0000	1,995.4825	1,995.4825	0.6454		2,011.6169
<b>Total</b>	<b>1.5403</b>	<b>16.9836</b>	<b>9.2202</b>	<b>0.0206</b>	<b>7.0826</b>	<b>0.7423</b>	<b>7.8249</b>	<b>3.4247</b>	<b>0.6829</b>	<b>4.1076</b>	<b>0.0000</b>	<b>1,995.4825</b>	<b>1,995.4825</b>	<b>0.6454</b>		<b>2,011.6169</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0328	0.0222	0.3062	9.3000e-004	0.1118	6.0000e-004	0.1124	0.0296	5.6000e-004	0.0302		94.3562	94.3562	2.3700e-003	2.3600e-003	95.1173
<b>Total</b>	<b>0.0328</b>	<b>0.0222</b>	<b>0.3062</b>	<b>9.3000e-004</b>	<b>0.1118</b>	<b>6.0000e-004</b>	<b>0.1124</b>	<b>0.0296</b>	<b>5.6000e-004</b>	<b>0.0302</b>		<b>94.3562</b>	<b>94.3562</b>	<b>2.3700e-003</b>	<b>2.3600e-003</b>	<b>95.1173</b>

The Ritz-Carlton Residences - Existing Uses - Orange County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.5 Building Construction - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8555	14.6040	14.3533	0.0250		0.7022	0.7022		0.6731	0.6731		2,289.2813	2,289.2813	0.4417		2,300.3230
<b>Total</b>	<b>1.8555</b>	<b>14.6040</b>	<b>14.3533</b>	<b>0.0250</b>		<b>0.7022</b>	<b>0.7022</b>		<b>0.6731</b>	<b>0.6731</b>		<b>2,289.2813</b>	<b>2,289.2813</b>	<b>0.4417</b>		<b>2,300.3230</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0705	2.0050	0.7096	8.1500e-003	0.2750	0.0188	0.2938	0.0791	0.0180	0.0972		891.9173	891.9173	0.0510	0.1279	931.3095
Worker	0.3638	0.2465	3.3993	0.0103	1.2407	6.7000e-003	1.2474	0.3290	6.1600e-003	0.3352		1,047.3542	1,047.3542	0.0263	0.0261	1,055.8015
<b>Total</b>	<b>0.4343</b>	<b>2.2515</b>	<b>4.1089</b>	<b>0.0185</b>	<b>1.5157</b>	<b>0.0255</b>	<b>1.5412</b>	<b>0.4082</b>	<b>0.0242</b>	<b>0.4324</b>		<b>1,939.2715</b>	<b>1,939.2715</b>	<b>0.0773</b>	<b>0.1541</b>	<b>1,987.1110</b>

The Ritz-Carlton Residences - Existing Uses - Orange County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.5 Building Construction - 2022**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8555	14.6040	14.3533	0.0250		0.7022	0.7022		0.6731	0.6731	0.0000	2,289.2813	2,289.2813	0.4417		2,300.3230
<b>Total</b>	<b>1.8555</b>	<b>14.6040</b>	<b>14.3533</b>	<b>0.0250</b>		<b>0.7022</b>	<b>0.7022</b>		<b>0.6731</b>	<b>0.6731</b>	<b>0.0000</b>	<b>2,289.2813</b>	<b>2,289.2813</b>	<b>0.4417</b>		<b>2,300.3230</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0705	2.0050	0.7096	8.1500e-003	0.2750	0.0188	0.2938	0.0791	0.0180	0.0972		891.9173	891.9173	0.0510	0.1279	931.3095
Worker	0.3638	0.2465	3.3993	0.0103	1.2407	6.7000e-003	1.2474	0.3290	6.1600e-003	0.3352		1,047.3542	1,047.3542	0.0263	0.0261	1,055.8015
<b>Total</b>	<b>0.4343</b>	<b>2.2515</b>	<b>4.1089</b>	<b>0.0185</b>	<b>1.5157</b>	<b>0.0255</b>	<b>1.5412</b>	<b>0.4082</b>	<b>0.0242</b>	<b>0.4324</b>		<b>1,939.2715</b>	<b>1,939.2715</b>	<b>0.0773</b>	<b>0.1541</b>	<b>1,987.1110</b>

The Ritz-Carlton Residences - Existing Uses - Orange County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.5 Building Construction - 2023**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7136	13.6239	14.2145	0.0250		0.6136	0.6136		0.5880	0.5880		2,289.5233	2,289.5233	0.4330		2,300.3479
<b>Total</b>	<b>1.7136</b>	<b>13.6239</b>	<b>14.2145</b>	<b>0.0250</b>		<b>0.6136</b>	<b>0.6136</b>		<b>0.5880</b>	<b>0.5880</b>		<b>2,289.5233</b>	<b>2,289.5233</b>	<b>0.4330</b>		<b>2,300.3479</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0419	1.5742	0.6448	7.7400e-003	0.2750	7.7800e-003	0.2827	0.0791	7.4400e-003	0.0866		850.2811	850.2811	0.0504	0.1221	887.9262
Worker	0.3418	0.2197	3.1663	9.9700e-003	1.2407	6.3400e-003	1.2471	0.3290	5.8400e-003	0.3349		1,020.2637	1,020.2637	0.0238	0.0243	1,028.1073
<b>Total</b>	<b>0.3837</b>	<b>1.7939</b>	<b>3.8110</b>	<b>0.0177</b>	<b>1.5157</b>	<b>0.0141</b>	<b>1.5298</b>	<b>0.4082</b>	<b>0.0133</b>	<b>0.4215</b>		<b>1,870.5448</b>	<b>1,870.5448</b>	<b>0.0742</b>	<b>0.1464</b>	<b>1,916.0335</b>

The Ritz-Carlton Residences - Existing Uses - Orange County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.5 Building Construction - 2023**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7136	13.6239	14.2145	0.0250		0.6136	0.6136		0.5880	0.5880	0.0000	2,289.5233	2,289.5233	0.4330		2,300.3479
<b>Total</b>	<b>1.7136</b>	<b>13.6239</b>	<b>14.2145</b>	<b>0.0250</b>		<b>0.6136</b>	<b>0.6136</b>		<b>0.5880</b>	<b>0.5880</b>	<b>0.0000</b>	<b>2,289.5233</b>	<b>2,289.5233</b>	<b>0.4330</b>		<b>2,300.3479</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0419	1.5742	0.6448	7.7400e-003	0.2750	7.7800e-003	0.2827	0.0791	7.4400e-003	0.0866		850.2811	850.2811	0.0504	0.1221	887.9262
Worker	0.3418	0.2197	3.1663	9.9700e-003	1.2407	6.3400e-003	1.2471	0.3290	5.8400e-003	0.3349		1,020.2637	1,020.2637	0.0238	0.0243	1,028.1073
<b>Total</b>	<b>0.3837</b>	<b>1.7939</b>	<b>3.8110</b>	<b>0.0177</b>	<b>1.5157</b>	<b>0.0141</b>	<b>1.5298</b>	<b>0.4082</b>	<b>0.0133</b>	<b>0.4215</b>		<b>1,870.5448</b>	<b>1,870.5448</b>	<b>0.0742</b>	<b>0.1464</b>	<b>1,916.0335</b>

The Ritz-Carlton Residences - Existing Uses - Orange County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.6 Paving - 2023**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8802	8.6098	11.6840	0.0179		0.4338	0.4338		0.4003	0.4003		1,709.9926	1,709.9926	0.5420		1,723.5414
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.8802</b>	<b>8.6098</b>	<b>11.6840</b>	<b>0.0179</b>		<b>0.4338</b>	<b>0.4338</b>		<b>0.4003</b>	<b>0.4003</b>		<b>1,709.9926</b>	<b>1,709.9926</b>	<b>0.5420</b>		<b>1,723.5414</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0462	0.0297	0.4279	1.3500e-003	0.1677	8.6000e-004	0.1685	0.0445	7.9000e-004	0.0453		137.8735	137.8735	3.2200e-003	3.2900e-003	138.9334
<b>Total</b>	<b>0.0462</b>	<b>0.0297</b>	<b>0.4279</b>	<b>1.3500e-003</b>	<b>0.1677</b>	<b>8.6000e-004</b>	<b>0.1685</b>	<b>0.0445</b>	<b>7.9000e-004</b>	<b>0.0453</b>		<b>137.8735</b>	<b>137.8735</b>	<b>3.2200e-003</b>	<b>3.2900e-003</b>	<b>138.9334</b>



The Ritz-Carlton Residences - Existing Uses - Orange County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.6 Paving - 2023**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8802	8.6098	11.6840	0.0179		0.4338	0.4338		0.4003	0.4003	0.0000	1,709.9926	1,709.9926	0.5420		1,723.5414
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.8802</b>	<b>8.6098</b>	<b>11.6840</b>	<b>0.0179</b>		<b>0.4338</b>	<b>0.4338</b>		<b>0.4003</b>	<b>0.4003</b>	<b>0.0000</b>	<b>1,709.9926</b>	<b>1,709.9926</b>	<b>0.5420</b>		<b>1,723.5414</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0462	0.0297	0.4279	1.3500e-003	0.1677	8.6000e-004	0.1685	0.0445	7.9000e-004	0.0453		137.8735	137.8735	3.2200e-003	3.2900e-003	138.9334
<b>Total</b>	<b>0.0462</b>	<b>0.0297</b>	<b>0.4279</b>	<b>1.3500e-003</b>	<b>0.1677</b>	<b>8.6000e-004</b>	<b>0.1685</b>	<b>0.0445</b>	<b>7.9000e-004</b>	<b>0.0453</b>		<b>137.8735</b>	<b>137.8735</b>	<b>3.2200e-003</b>	<b>3.2900e-003</b>	<b>138.9334</b>

The Ritz-Carlton Residences - Existing Uses - Orange County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.7 Architectural Coating - 2023**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	64.0117					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
<b>Total</b>	<b>64.2033</b>	<b>1.3030</b>	<b>1.8111</b>	<b>2.9700e-003</b>		<b>0.0708</b>	<b>0.0708</b>		<b>0.0708</b>	<b>0.0708</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0168</b>		<b>281.8690</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0678	0.0436	0.6275	1.9800e-003	0.2459	1.2600e-003	0.2472	0.0652	1.1600e-003	0.0664		202.2144	202.2144	4.7200e-003	4.8200e-003	203.7690
<b>Total</b>	<b>0.0678</b>	<b>0.0436</b>	<b>0.6275</b>	<b>1.9800e-003</b>	<b>0.2459</b>	<b>1.2600e-003</b>	<b>0.2472</b>	<b>0.0652</b>	<b>1.1600e-003</b>	<b>0.0664</b>		<b>202.2144</b>	<b>202.2144</b>	<b>4.7200e-003</b>	<b>4.8200e-003</b>	<b>203.7690</b>

The Ritz-Carlton Residences - Existing Uses - Orange County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.7 Architectural Coating - 2023**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	64.0117					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
<b>Total</b>	<b>64.2033</b>	<b>1.3030</b>	<b>1.8111</b>	<b>2.9700e-003</b>		<b>0.0708</b>	<b>0.0708</b>		<b>0.0708</b>	<b>0.0708</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0168</b>		<b>281.8690</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0678	0.0436	0.6275	1.9800e-003	0.2459	1.2600e-003	0.2472	0.0652	1.1600e-003	0.0664		202.2144	202.2144	4.7200e-003	4.8200e-003	203.7690
<b>Total</b>	<b>0.0678</b>	<b>0.0436</b>	<b>0.6275</b>	<b>1.9800e-003</b>	<b>0.2459</b>	<b>1.2600e-003</b>	<b>0.2472</b>	<b>0.0652</b>	<b>1.1600e-003</b>	<b>0.0664</b>		<b>202.2144</b>	<b>202.2144</b>	<b>4.7200e-003</b>	<b>4.8200e-003</b>	<b>203.7690</b>

The Ritz-Carlton Residences - Existing Uses - Orange County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.7857	2.7047	25.1878	0.0548	6.3876	0.0392	6.4268	1.7026	0.0364	1.7390		5,726.1517	5,726.1517	0.3832	0.2539	5,811.3895
Unmitigated	2.7857	2.7047	25.1878	0.0548	6.3876	0.0392	6.4268	1.7026	0.0364	1.7390		5,726.1517	5,726.1517	0.3832	0.2539	5,811.3895

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Enclosed Parking with Elevator	0.00	0.00	0.00		
Hotel	1,270.41	1,270.41	1,270.41	3,031,416	3,031,416
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Total	1,270.41	1,270.41	1,270.41	3,031,416	3,031,416

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

The Ritz-Carlton Residences - Existing Uses - Orange County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Enclosed Parking with Elevator	0.547453	0.060181	0.185039	0.126487	0.024236	0.006679	0.014707	0.004926	0.000662	0.000378	0.024745	0.000705	0.003801
Hotel	0.547453	0.060181	0.185039	0.126487	0.024236	0.006679	0.014707	0.004926	0.000662	0.000378	0.024745	0.000705	0.003801
Other Non-Asphalt Surfaces	0.547453	0.060181	0.185039	0.126487	0.024236	0.006679	0.014707	0.004926	0.000662	0.000378	0.024745	0.000705	0.003801

**5.0 Energy Detail**

Historical Energy Use: Y

**5.1 Mitigation Measures Energy**

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
NaturalGas Mitigated	0.0675	0.6137	0.5155	3.6800e-003		0.0466	0.0466		0.0466	0.0466		736.4575	736.4575	0.0141	0.0135	740.8339
NaturalGas Unmitigated	0.0675	0.6137	0.5155	3.6800e-003		0.0466	0.0466		0.0466	0.0466		736.4575	736.4575	0.0141	0.0135	740.8339

The Ritz-Carlton Residences - Existing Uses - Orange County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**5.2 Energy by Land Use - Natural Gas**

**Unmitigated**

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Hotel	6259.89	0.0675	0.6137	0.5155	3.6800e-003		0.0466	0.0466		0.0466	0.0466		736.4575	736.4575	0.0141	0.0135	740.8339
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0675</b>	<b>0.6137</b>	<b>0.5155</b>	<b>3.6800e-003</b>		<b>0.0466</b>	<b>0.0466</b>		<b>0.0466</b>	<b>0.0466</b>		<b>736.4575</b>	<b>736.4575</b>	<b>0.0141</b>	<b>0.0135</b>	<b>740.8339</b>

The Ritz-Carlton Residences - Existing Uses - Orange County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**5.2 Energy by Land Use - NaturalGas**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Hotel	6.25989	0.0675	0.6137	0.5155	3.6800e-003		0.0466	0.0466		0.0466	0.0466		736.4575	736.4575	0.0141	0.0135	740.8339
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0675</b>	<b>0.6137</b>	<b>0.5155</b>	<b>3.6800e-003</b>		<b>0.0466</b>	<b>0.0466</b>		<b>0.0466</b>	<b>0.0466</b>		<b>736.4575</b>	<b>736.4575</b>	<b>0.0141</b>	<b>0.0135</b>	<b>740.8339</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

The Ritz-Carlton Residences - Existing Uses - Orange County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.5019	7.1000e-004	0.0786	1.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004		0.1689	0.1689	4.4000e-004		0.1799
Unmitigated	1.5019	7.1000e-004	0.0786	1.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004		0.1689	0.1689	4.4000e-004		0.1799

**6.2 Area by SubCategory**

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1754					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.3192					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	7.2400e-003	7.1000e-004	0.0786	1.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004		0.1689	0.1689	4.4000e-004		0.1799
<b>Total</b>	<b>1.5019</b>	<b>7.1000e-004</b>	<b>0.0786</b>	<b>1.0000e-005</b>		<b>2.8000e-004</b>	<b>2.8000e-004</b>		<b>2.8000e-004</b>	<b>2.8000e-004</b>		<b>0.1689</b>	<b>0.1689</b>	<b>4.4000e-004</b>		<b>0.1799</b>



The Ritz-Carlton Residences - Existing Uses - Orange County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1754					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.3192					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	7.2400e-003	7.1000e-004	0.0786	1.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004		0.1689	0.1689	4.4000e-004		0.1799
<b>Total</b>	<b>1.5019</b>	<b>7.1000e-004</b>	<b>0.0786</b>	<b>1.0000e-005</b>		<b>2.8000e-004</b>	<b>2.8000e-004</b>		<b>2.8000e-004</b>	<b>2.8000e-004</b>		<b>0.1689</b>	<b>0.1689</b>	<b>4.4000e-004</b>		<b>0.1799</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

The Ritz-Carlton Residences - Existing Uses - Orange County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

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**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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## **APPENDIX B**

# **ENERGY CALCULATIONS**

Construction Off-Road Equipment										
Phase	Off-Road Equipment Type	Amount	Usage Hour/Day	Total Usage Days	Total Usage Hours/Equipment	Horsepower	Load Factor	Total Usage Hours/ Equipment	Horsepower-Hour	Fuel Usage (gallons)
Demolition	Concrete/Industrial Saws	1	8	180	1440	81	0.73	1440	85147.2	4359.53664
	Rubber Tired Dozers	1	8	180	1440	247	0.4	1440	142272	7284.3264
	Tractors/Loaders/Backhoes	3	8	180	4320	97	0.37	4320	155044.8	7938.29376
Site Preparation	Graders	1	8	10	80	187	0.41	80	6133.6	314.04032
	Scrapers	1	8	10	80	367	0.48	80	14092.8	721.55136
	Tractors/Loaders/Backhoes	1	7	10	70	97	0.37	70	2512.3	128.62976
Grading	Graders	1	8	100	800	187	0.41	800	61336	3140.4032
	Rubber Tired Dozers	1	8	100	800	247	0.4	800	79040	4046.848
	Tractors/Loaders/Backhoes	2	7	100	1400	97	0.37	1400	50246	2572.5952
Building Construction	Cranes	1	8	770	6160	231	0.29	6160	412658.4	21128.11008
	Forklifts	2	7	770	10780	89	0.2	10780	191884	9824.4608
	Generator Sets	1	8	770	6160	84	0.74	6160	382905.6	19604.76672
	Tractors/Loaders/Backhoes	1	6	770	4620	97	0.37	4620	165811.8	8489.56416
	Welders	3	8	770	18480	46	0.45	18480	382536	19585.8432
Paving	Cement and Mortar Mixers	1	6	40	240	9	0.56	240	1209.6	61.93152
	Pavers	1	8	40	320	130	0.42	320	17472	894.5664
	Paving Equipment	1	8	40	320	132	0.36	320	15206.4	778.56768
	Rollers	2	8	40	640	80	0.38	640	19456	996.1472
	Tractors/Loaders/Backhoes	1	8	40	320	97	0.37	320	11484.8	588.02176
Architectural Coating	Air Compressors	1	8	345	2760	97	0.37	2760	99056.4	5071.68768
<b>Total</b>										<b>97947.73504</b>

Construction Truck and Construction Worker Vehicle Fuel Efficiency				
Vehicle Type	Vehicle Class	EMFAC2021 Outputs		Diesel Fuel Efficiency (miles/gallon)
		Diesel Fuel Consumption (1,000 gallons/day)	VMT (miles/day)	
Construction Truck	HHDT	200.2	1181253.6	5.9
	MHDT	127.7	1137257.4	8.9
	HHDT/MHDT	-	-	7.4
Construction Worker Vehicle	LDA	1480.8	42617005.9	28.8
	LDT1	146.8	3561400.2	24.3
	LDT2	886.1	20509217.8	23.1
	Worker Mix	-	-	26.2

Notes:

<sup>1</sup> For construction trucks assumes 50 percent HHDT and 50 percent MHDT vehicles, consistent with assumptions in CalEEMod for hauling trucks. For construction worker vehicles assumes 50 percent LDA, 25 percent LDT1, and 25 percent LDT2 vehicles, consistent with assumptions in CalEEMod for worker vehicles.

<sup>2</sup> EMFAC2020 was run for Orange County for the construction year 2022. Data was aggregated over all vehicle model years and speed bins.

<sup>3</sup> The fuel efficiency was calculated by dividing the VMT (miles/day) by the fuel consumption (gallons/day).

Construction Vehicle Fuel Use - Diesel Vehicles							
Phase	Trip Type	Total One-Way Trips	Total Trips	Trip Length (miles)	Total VMT	Gasoline Fuel Efficiency (miles/gallon)	Fuel Usage (gallons/year)
Demolition	Hauling	1197	2394	20	47880	5.9	8115.3
Grading	Hauling	25713	51426	20	1028520	5.9	174325.4
Building Construction	Vendor	78	120120	6.9	828828	7.4	112003.8
<b>Total</b>							<b>286329.2</b>

Diesel

<sup>1</sup> Assumes 50 percent HHDT and 50 percent MHDT vehicles, consistent with assumptions in CalEEMod for hauling trucks.

<sup>2</sup> EMFAC2021 was run for Orange County for the construction year 2022. Data was aggregated over all vehicle model years and speed bins.

<sup>3</sup> The fuel efficiency was calculated by dividing the VMT (miles/day) by the fuel consumption (gallons/day).

Construction Worker Vehicle Fuel Use - Gasoline Vehicles							
Phase	Total One-Way Trips/Day	Total Days	Total Trips	Trip Length (miles)	Total VMT	Gasoline Fuel Efficiency (miles/gallon)	Fuel Usage (gallons/year)
Demolition	13	180	4680	14.7	68796	26.2	2625.8
Grading	8	10	160	14.7	2352	26.2	89.8
Site Preparation	10	100	2000	15.7	31400	26.2	1198.5
Building Construction	272	770	418880	14.7	6157536	26.2	235020.5
Paving	54	40	4320	14.7	63504	26.2	2423.8
Architectural Coating	15	345	10350	14.7	152145	26.2	5807.1
<b>Total</b>							<b>247165.4</b>

Gas

<b>Total Construction Gasoline Usage</b>	247165
<b>Total Construction Diesel Usage</b>	384277

<b>Electricity Usage</b>	
<b>Electricity by Land Use</b>	<b>kWh/year</b>
<b>Existing</b>	
Hotel	667,678
Enclosed Parking Structure with Elevator	1,077,200
Other Non-Asphalt Surfaces	-
<b>Total</b>	<b>1,744,878</b>
<b>Proposed</b>	
Apartments High Rise	609,579
Enclosed Parking Structure with Elevator	1,758,210
Other Non-Asphalt Surfaces	-
<b>Total</b>	<b>2,367,789</b>
<b>Net Electricity Use</b>	<b>622,911</b>

<b>Natural Gas Usage</b>			
<b>Natural Gas by Land Use</b>	<b>kBTU/year</b>	<b>BTU/year</b>	<b>therms/year</b>
<b>Existing</b>			
Hotel	2,284,860	2,284,860,000	22854
Enclosed Parking Structure with Elevator	-	-	-
Other Non-Asphalt Surfaces	-	-	-
<b>Total</b>	<b>2,284,860</b>	<b>2,284,860,000</b>	<b>22,854</b>
<b>Proposed</b>			
Apartments High Rise	1,772,790	1,772,790,000	17732
Enclosed Parking Structure with Elevator	-	-	-
Other Non-Asphalt Surfaces	-	-	-
<b>Total</b>	<b>1,772,790</b>	<b>1,772,790,000</b>	<b>17,732</b>
<b>Net Natural Gas Use</b>	<b>(512,070)</b>	<b>(512,070,000)</b>	<b>(5,122)</b>